```
FILE 'HOME' ENTERED AT 13:29:01 ON 09 MAY 96)
     FILE 'USPAT' ENTERED AT 13:29:10 ON 09 MAY 96
L1             5 S FINITE AUTOMAT? (P) RECOGNI?
L2            56 S APPLE AND HANDWRIT?
L3            11 S L2 AND DICTIONAR?
L4             7 S (3,849,762 OR 3,881,101 OR 4,053,871 OR 4,443,860 OR 4,5
24,
L5             1 S 5367453/PN
L6             3 S (4,731,857 OR 4,953,225 OR 5,231,698)/PN
=> d 1-3

1.  **5,231,698**, Jul. 27, 1993, Script/binary-encoded-character
processing method and system; Mitchell D. Forcier, 395/146, 155 [IMAGE
AVAILABLE]

2.  **4,953,225**, Aug. 28, 1990, Handwritten character-recognizing
apparatus for automatically generating and displaying character frames;
Fumio Togawa, et al., 382/179, 185, 231, 313 [IMAGE AVAILABLE]

3.  **4,731,857**, Mar. 15, 1988, Recognition system for run-on
handwritten characters; Charles C. Tappert, 382/178, 187 [IMAGE
AVAILABLE]
=>
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=> file uspat
FILE 'USPAT' ENTERED AT 13:29:10 ON 09 MAY 96
* *
* W E L C O M E T O T H E *
* U. S. P A T E N T T E X T F I L E *
* *
=> s finite automat? (p) recogni?

33549 FINITE
431962 AUTOMAT?
60 FINITE AUTOMAT?
(FINITE(W)AUTOMAT?)
257692 RECOGNI?
L1 5 FINITE AUTOMAT? (P) RECOGNI?
=> d1-
'D1-' IS NOT A RECOGNIZED COMMAND
=> d 1-

1. 5,500,920, Mar. 19, 1996, Semantic co-occurrence filtering for speech recognition and signal transcription applications; Julian M. Kupiec, 395/2.79; 364/419.07; 395/2.84, 2.86 [IMAGE AVAILABLE]

2. 5,452,451, Sep. 19, 1995, System for plural-string search with a parallel collation of a first partition of each string followed by finite automata matching of second partitions; Mitsuru Akizawa, et al., 395/600; 364/225.4, 253, 282.1, DIG.1; 395/800 [IMAGE AVAILABLE]

3. 5,299,206, Mar. 29, 1994, System and method for analyzing complex sequences in trace arrays using multiple finite automata; Arthur J. Beaverson, et al., 371/22.1, 22.2; 395/183.15 [IMAGE AVAILABLE]

4. 5,151,950, Sep. 29, 1992, Method for recognizing handwritten characters using shape and context analysis; Gregory N. Hullender, 382/187, 161, 203, 226, 229 [IMAGE AVAILABLE]

5. 4,754,420, Jun. 28, 1988, Digital data filter for local area network; Gordon A. Jensen, 364/724.01; 340/146.2; 364/715.11; 370/85.13 [IMAGE AVAILABLE]
=> d 4 fro

US PAT NO: 5,151,950 [IMAGE AVAILABLE] L1: 4 of 5
DATE ISSUED: Sep. 29, 1992
TITLE: Method for recognizing handwritten characters using shape and context analysis
INVENTOR: Gregory N. Hullender, Foster City, CA
ASSIGNEE: Go Corporation, Foster City, CA (U.S. corp.)
APPL-NO: 07/607,125
DATE FILED: Oct. 31, 1990
INT-CL: [5] G06K 9/00; G06K 9/62; G06K 9/72; G06K 9/46
US-CL-ISSUED: 382/13, 15, 37, 25, 39, 40
US-CL-CURRENT: 382/187, 161, 203, 226, 229
SEARCH-FLD: 382/3, 13, 37, 9, 14, 15, 25, 40, 39
REF-CITED:
U.S. PATENT DOCUMENTS
4,589,142 5/1986 Bednar 382/37
ART-UNIT: 266

PRIM-EXMR: Michael Razavi
ASST-EXMR: Michael Cammarata
LEGAL-REP: Matthew C. Rainey

ABSTRACT:
An improved pattern **recognition** system, using an improved method for merging low-level **recognition** information with auxiliary contextual information such as a Deterministic **Finite** **Automaton** (DFA). The system comprises a low-level shape **recognizer** for handwriting input, an English Language dictionary organized as a Trie (a special type of DFA), and software to merge the results of the two. An input of digitized handwriting strokes is translated into characters using the shape **recognizer** and the Trie in tandem, allowing the system to reject nonsense translations at the earliest possible stage of the process and without the overhead traversing the trie from the top with each translation.

13 Claims, 2 Drawing Figures

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?s finite automat? and recogni?(2n)word?

            7603  FINITE AUTOMAT?
          290224  RECOGNI?
           68883  WORD?
            7879  RECOGNI?(2N)WORD?
      S1      30  FINITE AUTOMAT? AND RECOGNI?(2N)WORD?
?rd

...completed examining records
      S2      25  RD (unique items)
?t 2/5/1-25


 2/5/1     (Item 1 from file: 2)
DIALOG(R)File   2:INSPEC
(c) 1996 Institution of Electrical Engineers. All rts. reserv.

5187754   INSPEC Abstract Number: B9603-6130-098, C9603-1250C-031
  Title:  The performance prediction on sentence recognition using a finite
state word automaton
  Author(s): Otsuki, T.; Ito, A.; Makino, S.; Ohtomo, T.
  Author Affiliation: Fac. of Eng., Yamagata Univ., Yonezawa, Japan
  Journal: IEICE Transactions on Information and Systems    vol.E79-D, no.1
p.47-53
  Publisher: Inst. Electron. Inf. & Commun. Eng,
  Publication Date: Jan. 1996    Country of Publication: Japan
  CODEN: ITISEF  ISSN: 0916-8532
  SICI: 0916-8532(199601)E79D:1L.47:PPSR;1-M
  Material Identity Number: P713-96003
  Language: English    Document Type: Journal Paper (JP)
  Treatment: Theoretical (T)
  Abstract: The paper presents a performance prediction method for a
sentence recognition system which uses a finite state word automaton. When
each word is uttered separately, the relationship between word recognition
score and sentence recognition score can be approximated using the number
of word sequences at a minimum distance from each sentence in the task.
However, it is not clear that the way in which we get this number using the
finite state word automaton is used as linguistic information. Therefore,
we propose an algorithm to calculate this number in polynomial time. We
then carry out the prediction using this method and use simulation to
compare the prediction for Japanese text editor commands. It is shown that
our method approximates the lower limit of sentence recognition score. (4
 Refs)
  Descriptors: finite automata; linguistics; natural languages; simulation;
speech recognition
  Identifiers: performance prediction; sentence recognition; finite state
word automaton; word recognition score; sentence recognition score; word
sequences; linguistic information; polynomial time algorithm; simulation;
Japanese text editor commands
  Class Codes: B6130 (Speech analysis and processing techniques); C1250C (
Speech recognition); C5260S (Speech processing techniques); C6180N (Natural
language processing); C4220 (Automata theory); C1220 (Simulation,
modelling and identification)
  Copyright 1996, IEE
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2/5/2 (Item 2 from file: 2)
DIALOG(R)File 2:INSPEC

4916151 INSPEC Abstract Number: B9505-6130-106, C9505-1250C-049
Title: The performance prediction method on sentence recognition system using a finite state automaton
Author(s): Otsuki, T.; Ito, A.; Makino, S.; Otomo, T.
Author Affiliation: Fac. of Eng., Yamagata Univ., Yonezawa, Japan
Part vol.1 p.I/397-400 vol.1
Publisher: IEEE, New York, NY, USA
Publication Date: 1994 Country of Publication: USA 6 vol. 3382 pp.
ISBN: 0 7803 1775 0
U.S. Copyright Clearance Center Code: 0 7803 1775 0/94/$3.00
Conference Title: Proceedings of ICASSP '94. IEEE International Conference on Acoustics, Speech and Signal Processing
Conference Sponsor: IEEE Signal Process. Soc
Conference Date: 19-22 April 1994 Conference Location: Adelaide, SA, Australia
Language: English Document Type: Conference Paper (PA)
Treatment: Theoretical (T)
Abstract: This paper presents the performance evaluation method on sentence recognition system which uses a finite state automaton. The relationship between word recognition score and sentence recognition score can be predicted using the number of word sequences at a short distance from the sentence. But it is not clear that how we get this number when the finite state automaton is used as linguistic information. Therefore, we propose the algorithm to calculate this number in polynomial time. Then we carry out the prediction using this method and the simulation to compare with the prediction, and it is shown that our method is usable when the quality of the word lattice is good. (4 Refs)
Descriptors: finite automata; prediction theory; speech recognition
Identifiers: performance prediction method; sentence recognition system; finite state automaton; performance evaluation method; word recognition score; sentence recognition score; word sequences; linguistic information; polynomial time; simulation; word lattice quality
Class Codes: B6130 (Speech analysis and processing techniques); C1250C (Speech recognition); C4220 (Automata theory)

2/5/3 (Item 3 from file: 2)
DIALOG(R)File 2:INSPEC

4817241 INSPEC Abstract Number: C9412-4220-029
Title: Finite-valued distance automata
Author(s): Weber, A.
Author Affiliation: Fachbereich Inf., Frankfurt Univ., Germany
Journal: Theoretical Computer Science vol.134, no.1 p.225-51
Publication Date: 7 Nov. 1994 Country of Publication: Netherlands
CODEN: TCSCDI ISSN: 0304-3975
U.S. Copyright Clearance Center Code: 0304-3975/94/$07.00
Conference Title: Second International Colloquium on Words, Languages and Combinatorics
Conference Sponsor: Kyoto Sangyo Univ
Conference Date: 25-28 Aug. 1992 Conference Location: Kyoto, Japan

Language: English Document Type: Conference Paper (PA); Journal Paper (JP)
Treatment: Theoretical (T)
Abstract: Distance automata are a model of finite-state machines which charge to an input word the expense of the cheapest successful computation consuming that word, called its distance. The distance of such a machine is the maximal distance of an input word recognized by it or is infinite, depending on whether or not a maximum exists. The valuedness of a distance automaton is introduced by considering this machine to be a transducer with unary output alphabet. The distance of a finite-valued distance automaton with n states is either infinite or at most 6/sup n/.(2n)(n/sup 2/)-1. In the former case its growth is linear in the input length. The problem of deciding whether a given finite-valued (2-valued, respectively) distance automaton has infinite distance is PSPACE-complete. It is decidable in deterministic double exponential time whether two given finite-valued distance automata are equivalent, i.e., every input word has the same distance in both machines. There is an inherently infinite-valued distance automaton and, for each k, an inherently k-valued distance automaton such that the growth of the distance in all these machines is linear in the input length. It is decidable in deterministic polynomial time whether a 2-valued distance automaton given as the disjoint union of two single-valued distance automata is inherently 2-valued. (26 Refs)
Descriptors: computational complexity; finite automata; finite state machines
Identifiers: finite-valued distance automata; finite-state machines; input word; cheapest successful computation; expense; maximal distance; valuedness; transducer; unary output alphabet; PSPACE-complete problem; deterministic double exponential time; deterministic polynomial time; disjoint union; single-valued distance automata
Class Codes: C4220 (Automata theory); C4240 (Programming and algorithm theory)

2/5/4 (Item 4 from file: 2)
DIALOG(R)File 2:INSPEC

4783015 INSPEC Abstract Number: C9411-4220-027
Title: Automata on infinite words
Author(s): Perrin, D.
Author Affiliation: Univ. de Marne la Vallee, Noisy le Grand, France
Journal: IFIP Transactions A (Computer Science and Technology) vol.A-51 p.491-2
Publication Date: 1994 Country of Publication: Netherlands
CODEN: ITATEC ISSN: 0926-5473
Conference Title: Technology and Foundations Information Processing '94. IFIP 13th World Computer Congress
Conference Date: 28 Aug.-2 Sept. 1994 Conference Location: Hamburg, Germany
Language: English Document Type: Conference Paper (PA); Journal Paper (JP)
Treatment: Theoretical (T)
Abstract: The theory of automata on infinite objects is a subject born with the work of Richard Buchi in the years 60. It was Buchi's discovery that there is a logical system corresponding to the expressive power of finite automata. This system is a fragment of the theory of the integers known as the monadic second order logic of one successor, or S1S. The weak theory, that is the interpretation of formulas on finite sets of integers,

corresponds to the ordinary theory of automata recognizing finite words. The full theory, with set variables interpreted as arbitrary sets of integers, corresponds to the new theory of automata on infinite words invented by Buchi. The author presents a new development of this theory: the notion of an omega -semigroup. It is due to D. Perrin and J.E. Pin (1993), elaborating on work by T. Wilke (1991) and more remotely, on ideas introduced by Buchi at the beginning. The main idea is to extend to the case of omega -words the notion of recognition by a semigroup morphism. (6 Refs)

Descriptors: finite automata; formal languages; group theory

Identifiers: automata theory; infinite words; logical system; expressive power; finite automata; monadic second order logic of one successor; S1S; weak theory; set variables; arbitrary sets; semigroup morphism

Class Codes: C4220 (Automata theory); C4210 (Formal logic); C1160 (Combinatorial mathematics)

2/5/5 (Item 5 from file: 2)
DIALOG(R)File 2:INSPEC

4435709 INSPEC Abstract Number: C9308-4220-007

Title: Distance automata having large finite distance or finite ambiguity

Author(s): Weber, A.

Author Affiliation: Fachbereich Inf., Johann Wolfgang Goethe-Univ., Frankfurt-Main, Germany

Journal: Mathematical Systems Theory vol.26, no.2 p.169-85

Publication Date: 1993 Country of Publication: USA

CODEN: MASTBA ISSN: 0025-5661

U.S. Copyright Clearance Center Code: 0025-5661/93/$6.00

Language: English Document Type: Journal Paper (JP)

Treatment: Theoretical (T)

Abstract: A distance automaton is a (nondeterministic finite) automaton which is equipped with a nonnegative cost function on its transitions. The distance of a word recognized by such a machine quantifies the expenses associated with the recognition of this word. The distance of a distance automaton is the maximal distance of a word recognized by this machine or is infinite, depending on whether or not a maximum exists. The author presents distance automata having n states and distance 2/sup n/-2. As a by-product the author obtains regular languages having exponential finite-order. Given a finitely ambiguous distance automaton with n states, it is shown that either its distance is at most 3/sup n/-1, or the growth of the distance in his machine is linear in the input length. The infinite distance problem for these distance automata is NP-hard and solvable in polynomial space. The infinite-order problem for regular languages is PSPACE-complete. (27 Refs)

Descriptors: computational complexity; finite automata; formal languages

Identifiers: nondeterministic finite automata; finite distance; finite ambiguity; distance automaton; nonnegative cost function; regular languages ; n; infinite distance problem; NP-hard; polynomial space; infinite-order problem; PSPACE-complete

Class Codes: C4220 (Automata theory); C4210 (Formal logic); C4240 (Programming and algorithm theory)

2/5/6 (Item 6 from file: 2)
DIALOG(R)File 2:INSPEC

04020620 INSPEC Abstract Number: B91078306, C91067645
Title: A Japanese text dictation system based on phoneme recognition and a dependency grammar
Author(s): Makino, S.; Ito, A.; Endo, M.; Kido, K.
Author Affiliation: Res. Center for Appl. Inf. Sci., Tohoku Univ., Sendai, Japan
Journal: IEICE Transactions vol.E74, no.7 p.1773-82
Publication Date: July 1991 Country of Publication: Japan
CODEN: IEITEF ISSN: 0917-1673
Language: English Document Type: Journal Paper (JP)
Treatment: Theoretical (T); Experimental (X)
Abstract: Describes an overview of Japanese text dictation system composed of an acoustic processor and a linguistic processor. The system deals with 843 conceptual words and 431 functional words. The phoneme recognition is carried out using a modified LVQ2 method. The phoneme recognition score was 86.1% for 226 sentences uttered by two male speakers. The linguistic processor is composed of a processor for spotting Bunsetsu-units and a syntactic processor. The structure of the Bunsetsu-unit is effectively described by a finite-state automaton. The test-set perplexity of the finite-state automation is 230. In the processor for spotting Bunsetsu-units, using a syntax-driven continuous-DP matching algorithm, the Bunsetsu-units are spotted from a recognized phoneme sequence and then a Bunsetsu-unit lattice is generated. In the syntactic processor, the Bunsetsu-unit lattice is parsed based on the dependency grammar. The dependency grammar is expressed as the correspondence between a feature marker in a modifier-Bunsetsu and a slot-filler marker in a head-Bunsetsu. The recognition scores of the Bunsetsu-unit and conceptual words were 73.2% and 85.7% for 226 sentences uttered by the two male speakers. (19 Refs)
Descriptors: finite automata; grammars; speech recognition
Identifiers: feature marker; slot filler market; Japanese text dictation system; phoneme recognition; dependency grammar; acoustic processor; linguistic processor; conceptual words; functional words; modified LVQ2 method; male speakers; Bunsetsu-units; syntactic processor; finite-state automaton; test-set perplexity; continuous-DP matching algorithm; recognition scores
Class Codes: B6130 (Speech analysis and processing techniques); C1250C (Speech recognition); C4220 (Automata theory); C4210 (Formal logic)

2/5/7 (Item 7 from file: 2)
DIALOG(R)File 2:INSPEC

03117734 INSPEC Abstract Number: B88027861, C88022160
Title: Isolated word recognition based on finite state vector quantization and hidden Markov modeling
Author(s): Koo, J.M.; Un, C.K.
Author Affiliation: Dept. of Electr. Eng., Korea Adv. Inst. of Sci. & Technol., Seoul, South Korea
Conference Title: Proceedings of TENCON 87: 1987 IEEE Region 10 Conference 'Computers and Communications Technology Toward 2000' (Cat. No.87CH2423-2) p.1282-6 vol.3
Publisher: IEEE, New York, NY, USA
Publication Date: 1987 Country of Publication: USA 3 vol. 1380 pp.
U.S. Copyright Clearance Center Code: CH2423-2/87/0000-1282$01.00
Conference Sponsor: IEEE; Korea Inst. Electron. Eng.; Minist. Commun.; et

al
Conference Date: 25-28 Aug. 1987 Conference Location: Seoul, South Korea
Language: English Document Type: Conference Paper (PA)
Treatment: Theoretical (T); Experimental (X)
Abstract: An isolated word recognition system based on labeled-transition finite-stator vector quantization (FSVQ) and hidden Markov modeling (HMM) is proposed. Computer simulation for ten Korean digits has been performed for various codebook sizes and various numbers of HMM states. As compared with an isolated word recognition system that uses VQ and HMM, the proposed system requires far less search time and about the same storage size, and yields comparable recognition accuracies. (11 Refs)
Descriptors: analogue-digital conversion; encoding; finite automata; graph theory; Markov processes; pulse-code modulation; speech recognition; vectors
Identifiers: hidden Markov modeling; isolated word recognition; labeled-transition finite-stator vector quantization; Korean digits
Class Codes: B0240Z (Other and miscellaneous); B0250 (Combinatorial mathematics); B6120B (Codes); B6130 (Speech analysis and processing techniques); C1140Z (Other and miscellaneous); C1160 (Combinatorial mathematics); C1250C (Speech recognition); C4220 (Automata theory)

2/5/8 (Item 8 from file: 2)
DIALOG(R)File 2:INSPEC

03003053 INSPEC Abstract Number: C87066038
Title: A formal design of an Arabic text formatter for microcomputers
Author(s): Zaki, M.; Albarhamtoshy, A.H.
Author Affiliation: Dept. of Comput. & Syst. Eng., Al-Azhar Univ., Cairo, Egypt
Journal: Computer Languages vol.12, no.2 p.123-43
Publication Date: 1987 Country of Publication: UK
CODEN: COLADA ISSN: 0096-0551
U.S. Copyright Clearance Center Code: 0096-0551/87/$3.00+0.00
Language: English Document Type: Journal Paper (JP)
Treatment: Practical (P)
Abstract: This work presents the formal design of an Arabic text formatter (ATF), that may help many users in the Arab world. The design procedure is based on an automata approach to describe and recognize the Arabic characters. Thus a scanner is constructed in order to deal with the input stream and to recognize the words being written as well as to produce output tokens. Actually the form of an Arabic letter depends on its position in word. Therefore, the character generator should produce the correct shape to match the rules of writing the Arabic words. The authors employ a keyboard that has a unique form for each character, however, the justification and the proper choice of a symbol format is carried out by the designed scanner. For the scanner, the regular expressions, the nondeterministic finite automata and the deterministic finite automata are given. The system commands and their corresponding actions are also pointed out. (11 Refs)
Descriptors: character sets; deterministic automata; finite automata; text editing; word processing
Identifiers: Arabic text formatter; Arabic characters; Arabic letter; character generator; keyboard; symbol format; nondeterministic finite automata; deterministic finite automata
Class Codes: C4220 (Automata theory); C4240 (Programming and algorithm

theory); C6130D (Word processing techniques)

2/5/9 (Item 9 from file: 2)
DIALOG(R)File 2:INSPEC

02976913 INSPEC Abstract Number: B87061730, C87051512
Title: Duration modelling in finite state automata for speech recognition and fast speaker adaptation
Author(s): Codogno, M.; Fissore, L.
Author Affiliation: CSELT, Torino, Italy
Conference Title: Proceedings: ICASSP 87. 1987 International Conference on Acoustics, Speech, and Signal Processing (Cat. No.87CH2396-0) p. 1269-72 vol.3
Publisher: IEEE, New York, NY, USA
Publication Date: 1987 Country of Publication: USA 4 vol. 2425 pp.
U.S. Copyright Clearance Center Code: CH2396-0/87/0000-1269$01.00
Conference Sponsor: IEEE
Conference Date: 6-9 April 1987 Conference Location: Dallas, TX, USA
Language: English Document Type: Conference Paper (PA)
Treatment: Theoretical (T); Experimental (X)
Abstract: The classical first-order hidden Markov models with continuous probabilistic density function (HMMCs) seem to be a promising tool for speech modelling with reference to the task of both isolated-word and continuous-speech recognition. Two different approaches are utilized to obtain sets of models in which the state duration is characterized by suited probability density functions. In order to evaluate the performance of both model sets, two difficult speaker-dependent recognition tasks have been carried out. Use of a limited-size training lexicon for a new speaker was also treated, and these duration models were merged with the other ones obtained through some speakers. (6 Refs)
Descriptors: finite automata; Markov processes; speech recognition
Identifiers: isolated word recognition; finite state automata; speech recognition; fast speaker adaptation; first-order hidden Markov models; continuous probabilistic density function; speech modelling; continuous-speech recognition; state duration; probability density functions; model; speaker-dependent recognition; limited-size training lexicon
Class Codes: B6130 (Speech analysis and processing techniques); C1250C (Speech recognition); C4220 (Automata theory)

2/5/10 (Item 10 from file: 2)
DIALOG(R)File 2:INSPEC

02911652 INSPEC Abstract Number: C87039751
Title: On fuzzy automata and fuzzy grammars
Author(s): Peeva, K.G.
Author Affiliation: Center of Appl. Math., Sofia, Bulgaria
Journal: Koezlemenyek Magyar Tudomanyos Akademia Szamitastechnikai es Automatizalasi Kutato Intezete no.33 p.55-67
Publication Date: 1985 Country of Publication: Hungary
CODEN: KMTIDC ISSN: 0133-7459
Language: English Document Type: Journal Paper (JP)
Treatment: Theoretical (T)
Abstract: Fuzzy grammars and fuzzy languages in connection with finite

fuzzy acceptors are studied. Let A be a finite fuzzy acceptor and R(A) be a set of all words recognizable by A. It is proved that for each fuzzy regular grammar G/sub F/ generating the language L(G/sub F/) there exists a finite fuzzy acceptor A such that R(A)=L(G/sub F/) and vice versa. The main results are about algorithmical decidability of epsilon -equivalence and epsilon -reduction by inputs. It is shown that the relation epsilon -closeness of matrices is invariant. On this base some properties of the epsilon -equivalence and epsilon -reduction are obtained and their application in syntactic pattern recognition are discussed. (6 Refs)
Descriptors: equivalence classes; finite automata; fuzzy set theory; grammars; matrix algebra; pattern recognition
Identifiers: bounded chain; matrix epsilon -closeness; fuzzy automata; fuzzy grammars; fuzzy languages; finite fuzzy acceptors; fuzzy regular grammar; algorithmical decidability; epsilon -equivalence; epsilon -reduction; syntactic pattern recognition
Class Codes: C4210 (Formal logic); C4220 (Automata theory)

2/5/11 (Item 11 from file: 2)
DIALOG(R)File 2:INSPEC

02870416 INSPEC Abstract Number: C87027197
Title: Isolated word recognition based on finite-state vector quantization
Author(s): Youn, W.S.; Un, C.K.
Author Affiliation: Korea Adv. Inst. of Sci. & Technol., Seoul, South Korea
Journal: International Journal on Policy and Information vol.10, no.2 p.43-52
Publication Date: 15 Dec. 1986 Country of Publication: Taiwan
CODEN: IJPIDH ISSN: 0251-1266
Language: English Document Type: Journal Paper (JP)
Treatment: Theoretical (T)
Abstract: Proposes a recognition system for isolated spoken words, based on the finite-state vector quantization (FSVQ) method. The recognition system can be viewed as a finite state machine composed of a codebook and next-state functions. As compared to an isolated word recognition system that uses the conventional memoryless vector quantization, the proposed system requires far less search time, and needs no segmentation of input speech, yet yields comparable recognition accuracies. For the design of next-state functions, two techniques, the conditional histogram and omniscient design methods, are used, and their performances are compared in recognition of the ten Korean digits. (9 Refs)
Descriptors: finite automata; speech recognition
Identifiers: word recognition; finite-state vector quantization; isolated spoken words; codebook; next-state functions; search time; conditional histogram; omniscient design; Korean digits
Class Codes: C1250C (Speech recognition); C4220 (Automata theory)

2/5/12 (Item 12 from file: 2)
DIALOG(R)File 2:INSPEC

02771252 INSPEC Abstract Number: B86069006, C86054473
Title: Emission probability modelling for speaker independent recognition of isolated words via telephone lines
Author(s): Noll, A.; Ney, H.; Mergel, D.

Author Affiliation: Philips GmbH Forschungslab., Hamburg, West Germany
Journal: NTG-Fachberichte vol.94 p.26-30
Publication Date: 1986 Country of Publication: West Germany
CODEN: NTGFDK ISSN: 0341-0196
Conference Title: Sprachkommunikation. Vortrage der NTG-Fachtagung (Speech Communication. Proceedings of the NTG Meeting)
Conference Sponsor: NTG; GI; IEEE
Conference Date: 28-30 April 1986 Conference Location: Munich, West Germany
Language: English Document Type: Conference Paper (PA); Journal Paper (JP)
Treatment: Applications (A); Theoretical (T)
Abstract: The application of finite state machines to the speaker independent recognition of isolated words via telephone lines is studied. In particular, different techniques of modelling the continuous emission probability density functions (PDFs) are made use of. The recognition tests were carried out on the German digits with '2' being spoken as 'zwo' and a population of 50 training and 50 test speakers. The results show that a small, but consistent improvement can be obtained by refining the assumptions of the statistical model. For the best techniques, an error rate of 3.3% and 1.4% were measured for automatic and manually corrected endpoint detection, respectively. (8 Refs)
Descriptors: finite automata; probability; speech recognition; statistical analysis; telephone lines
Identifiers: training speakers; speaker independent recognition; isolated words; telephone lines; finite state machines; continuous emission probability density functions; test speakers; statistical model; endpoint detection
Class Codes: B0240Z (Other and miscellaneous); B6130 (Speech analysis and processing techniques); B6220C (Telephone stations); C1250C (Speech recognition); C4220 (Automata theory)

2/5/13 (Item 13 from file: 2)
DIALOG(R)File 2:INSPEC

02496090 INSPEC Abstract Number: B85046733, C85035804
Title: Statistical modelling and dynamic programming in speech recognition
Author(s): Ney, H.; Geppert, R.; Mergel, D.; Noll, A.; Piotrwoski, K.; Schwartau, P.; Tomaschewski, H.
Journal: Sprache und Datenverarbeitung vol.8, no.1-2 p.17-33
Publication Date: 1984 Country of Publication: West Germany
CODEN: SPDADH ISSN: 0343-5202
Language: English Document Type: Journal Paper (JP)
Treatment: Theoretical (T)
Abstract: The authors describe the principles of speech recognition in the framework of statistical pattern recognition and show how these principles can be used to build world recognition systems and arrive at microprocessor based systems. Starting with Bayes' decision rule for minimum error rate, they formulate the speech recognition problem as one of finding the best path through a finite automaton. This search process can be efficiently performed by the technique of dynamic programming. The formulation of the finite automaton requires statistical models of the acoustic-phonetic process and of the language. These models contain parameters which have to be estimated from training utterances. The finite automaton approach shows a very elegant way for consistently estimating these model parameters. They then discuss how the principles can be applied

to speaker independent recognition of isolated words and to connected word recognition and what results have been achieved. Using the same principles, they consider the problem of how to determine phonetic units for recognition as opposed to whole word templates and present some experimental results. Finally as a typical example of a stand-alone system, they describe a microprocessor system for connected word recognition. (34 Refs)

Descriptors: Bayes methods; dynamic programming; pattern recognition; speech recognition; statistical analysis

Identifiers: dynamic programming; speech recognition; statistical pattern recognition; world recognition systems; microprocessor based systems; Bayes' decision rule; minimum error rate; finite automaton; phonetic units; connected word recognition

Class Codes: B0240E (Game theory); B0260 (Optimisation techniques); B6130 (Speech analysis and processing techniques); C1140E (Game theory); C1180 (Optimisation techniques); C1250C (Speech recognition); C5585 (Speech recognition and synthesis)

2/5/14 (Item 14 from file: 2)
DIALOG(R)File 2:INSPEC

02461019 INSPEC Abstract Number: C85031034

Title: A general computational model for word-form recognition and production

Author(s): Koskenniemi, K.

Author Affiliation: Dept. of Gen. Linguistics, Helsinki Univ., Finland

Conference Title: 10th International Conference on Computational Linguistics. 22nd Annual Meeting of the Association for Computational Linguistics. Proceedings of Coling 84 p.178-81

Publisher: Assoc. Comput. Linguistics, Morristown, NJ, USA

Publication Date: 1984 Country of Publication: USA xv+561 pp.

Conference Date: 2-6 July 1984 Conference Location: Stanford, CA, USA

Language: English Document Type: Conference Paper (PA)

Treatment: Practical (P)

Abstract: A language independent model for recognition and production of word forms is presented. This 'two-level model' is based on a new way of describing morphological alternations. All rules describing the morphophonological variations are parallel and relatively independent of each other. Individual rules are implemented as finite state automata. The two-level model has been implemented as an operational computer program. A number of operational two-level descriptions have been written or are in progress (Finnish, English, Japanese, Rumanian, French, Swedish, Old Church Slavonic, Greek, Lapp, Arabic, Icelandic). The model is bidirectional and it is capable of both analyzing and synthesizing word-forms. (14 Refs)

Descriptors: finite automata; linguistics; natural languages

Identifiers: computational linguistics; computational model; word-form recognition; morphological alternations; finite state automata; operational computer program

Class Codes: C4220 (Automata theory); C7820 (Humanities)

2/5/15 (Item 15 from file: 2)
DIALOG(R)File 2:INSPEC

02441489 INSPEC Abstract Number: C85023259

Title: Infinitary rational relations
Author(s): Gire, F.; Nivat, M.
Author Affiliation: Lab. d'Informatique Theor. et Programmation, Paris Univ., France
Journal: Calcolo vol.21, no.2 p.91-125
Publication Date: April-June 1984 Country of Publication: Italy
CODEN: CALOBK ISSN: 0008-0624
Language: French Document Type: Journal Paper (JP)
Treatment: Theoretical (T)
Abstract: A theory of infinitary rational relations is built; this is an extension of the theory of finitary rational relations, i.e. sets of K-vectors of finite words which are recognised by finite automata with K tapes, and at the same time an extension of the theory of infinitary rational languages, i.e. sets of finite and infinite words which are recognised by finite automata (the condition of recognizability of an infinite word is that its reading by the automation must go through a state which belongs to a designated subset, infinitely many times). The main result is a theorem similar to the Kleene theorem about rational languages of finite words: it is proven that the family of relations recognised by finite automata with K tapes is the family of relations obtained from the finite finitary relations with a finite sequence of operations of: union, product, finite star and infinite star. The closure properties of this family of relations are then studied. (10 Refs)
Descriptors: finite automata; formal languages
Identifiers: infinitary rational relations; finitary rational relations; K-vectors; finite words; finite automata; K tapes; infinitary rational languages; infinite words; Kleene theorem; closure properties
Class Codes: C4210 (Formal logic); C4220 (Automata theory)

2/5/16 (Item 16 from file: 2)
DIALOG(R)File 2:INSPEC

00526905 INSPEC Abstract Number: C73015267
Title: Description and recognition of machine element shapes
Author(s): Jakubowski, R.; Kasprzak, A.
Author Affiliation: Acad. Sci., Gliwice, Poland
Journal: Bulletin de l'Academie Polonaise des Sciences. Serie des Sciences Techniques vol.21, no.1 p.63-8
Publication Date: 1973 Country of Publication: Poland
CODEN: BAPTA9 ISSN: 0001-4125
Language: English Document Type: Journal Paper (JP)
Treatment: Theoretical (T)
Abstract: A method of the description of shapes of machine elements and their recognition for purposes of automatic design of machining technology is given. The method is constructed on the basis of regular events denoted by regular expressions. It is shown how to construct finite-state machines recognizing words corresponding to machine element shapes. (4 Refs)
Descriptors: computer-aided design; design engineering; finite automata
Identifiers: machine element shapes; automatic design; machining technology
Class Codes: C4220 (Automata theory); C7490 (Other engineering fields)

2/5/17 (Item 17 from file: 2)
DIALOG(R)File 2:INSPEC

00312819 INSPEC Abstract Number: C71022121
Title: On automation and 'zonal' complexities of the predicate 'to be a k-th power of a number'
Author(s): Breitbart, Yu.Ya.
Journal: Doklady Akademii Nauk SSSR vol.196, no.1 p.16-19
Publication Date: 1971 Country of Publication: USSR
CODEN: DANKAS ISSN: 0002-3264
Translated in: Soviet Physics - Doklady
Country of Publication: USA
CODEN: SPHDA9 ISSN: 0038-5689
Language: Russian Document Type: Journal Paper (JP)
Treatment: Theoretical (T)
Abstract: The note derives a proof that a finite automation which recognizes T/sub h/(x) with words of length not exceeding n requires a number of states of the order that is not less than p/sup n/h/. As a result, the on-line (off-line) zone of the Turing machine is evaluated, and in the first case the evaluation is of a final order.
Descriptors: finite automata; Turing machines
Identifiers: zonal complexities; on line; off line; word recognition; predicate; number; finite automation; words; Turing machine
Class Codes: C4220 (Automata theory)

2/5/18 (Item 1 from file: 8)
DIALOG(R)File 8:Ei Compendex*Plus(TM)

04299190 E.I. No: EIP95122945035
Title: Segmental intensity and HMM modeling
Author: Dumouchel, P.; O'Shaughnessy, D.
Corporate Source: Universite du Quebec, Verdun, Que, Can
Conference Title: Proceedings of the 1995 Canadian Conference on Electrical and Computer Engineering. Part 2 (of 2)
Conference Location: Montreal, Que, Can
Sponsor: IEEE
E.I. Conference No.: 44015
Source: Canadian Conference on Electrical and Computer Engineering v 2 1995. IEEE, Piscataway, NJ, USA,95TH8103. p 995-998
Publication Year: 1995
CODEN: CCCEFV ISSN: 0840-7789
Language: English
Document Type: CA; (Conference Article) Treatment: T; (Theoretical)
Journal Announcement: 9602W1
Abstract: We propose to use a stochastic segmental intensity model independent of the HMM model in INRS's large vocabulary speech continuous speech recognizer. First, we examine how to insert this model into the search algorithm without violating the optimality constraints of this algorithm. Second, we propose and test the performance of four different intensity models. The training and testing of the models is done on a studio quality speaker-dependent speech corpus. The first model is a Gaussian mixture phone intensity model independent of the phonemic context. The second model is a Gaussian mixture phone intensity model dependent on the right or left phoneme context. The third model is a Gaussian mixture intensity model based on the variation of intensity within a diphone. Finally, the last model consists of a stochastic silence-speech detector. Performance comparisons show that the best model uses Gaussian mixture of the variation of intensity within a diphone (third model). This model

improves the percentage of word recognition from 89.58% (no intensity modeling) to 90.92%. (Author abstract) 11 Refs.
Descriptors: *Speech recognition; Mathematical models; Speech processing; Algorithms; Performance; Markov processes; Computer simulation; Finite automata; Sequential machines; Probability
Identifiers: Segmental intensity; Prosody; Suprasegmental features; Markov source based continuous speech recognizer; Large vocabulary; Hidden Markov modeling
Classification Codes:
751.5 (Speech); 921.6 (Numerical Methods); 922.1 (Probability Theory); 723.5 (Computer Applications); 721.1 (Computer Theory, Includes Formal Logic, Automata Theory, Switching Theory, Programming Theory); 921.1 (Algebra)
751 (Acoustics); 921 (Applied Mathematics); 922 (Statistical Methods); 723 (Computer Software); 721 (Computer Circuits & Logic Elements)
75 (ACOUSTICAL TECHNOLOGY); 92 (ENGINEERING MATHEMATICS); 72 (COMPUTERS & DATA PROCESSING)

2/5/19 (Item 2 from file: 8)
DIALOG(R)File 8:Ei Compendex*Plus(TM)

03701992 E.I. No: EIP93091069448
Title: Prototype-based MCE/GPD training for word spotting and connected word recognition
Author: McDermott, Erik; Katagiri, Shigeru
Corporate Source: ATR Auditory and Visual Perception Research Lab, Kyoto, Jpn
Conference Title: 1993 IEEE International Conference on Acoustics, Speech and Signal Processing
Conference Location: Minneapolis, MN, USA
Sponsor: IEEE; Signal Processing Society
E.I. Conference No.: 18798
Source: Speech Processing Proceedings - ICASSP, IEEE International Conference on Acoustics, Speech and Signal Processing v 2 1993. Publ by IEEE, IEEE Service Center, Piscataway, NJ, USA. p II-291-II-294
Publication Year: 1993
CODEN: IPRODJ ISSN: 0736-7791 ISBN: 0-7803-0946-4
Language: English
Document Type: CA; (Conference Article) Treatment: T; (Theoretical)
Journal Announcement: 9310W5
Abstract: The Prototype-Based Minimum Error Classifier (PBMEC) that we previously described achieved high recognition rates for isolated word recognition problems. However, it was left unclear how PBMEC could be trained in a continuous speech recognition task. Here we describe a straightforward application of PBMEC training to existing techniques for handling continuous speech. Furthermore, we define a new MCE/GPD loss function that can incorporate word spotting errors and other measures of symbolic distance between correct and incorrect categories. Classification consists in a time-synchronous DTW pass through a finite state machine; adaptation makes use of an A* based N-best algorithm and consists in propagating the derivative of the loss over the N best paths through the finite state machine. The key feature is that the loss function being optimized closely reflects the actual recognition performance of the system. (Author abstract) 14 Refs.
Descriptors: *Pattern recognition; Speech recognition; Character recognition; Mathematical models; Vectors; Neural networks; Finite automata

; Learning systems; Error analysis; Computational linguistics
Identifiers: Kohonen's learning vector quantization; Generalized probabilistic descent (GPD); Minimum classification error (MCE); Prototype based minimum error classifier (PBMEC); MCE/GPD loss function
Classification Codes:
723.2 (Data Processing); 751.5 (Speech); 723.4 (Artificial Intelligence); 721.1 (Computer Theory, Includes Formal Logic, Automata Theory, Switching Theory, Programming Theory)
723 (Computer Software); 751 (Acoustics); 921 (Applied Mathematics); 721 (Computer Circuits & Logic Elements)
72 (COMPUTERS & DATA PROCESSING); 75 (ACOUSTICAL TECHNOLOGY); 92 (ENGINEERING MATHEMATICS)

2/5/20 (Item 3 from file: 8)
DIALOG(R)File 8:Ei Compendex*Plus(TM)

03480082 E.I. Monthly No: EI9209119782
Title: A comparative study of two search strategies for connected word recognition: Dynamic programming and heuristic search.
Author: Ney, Hermann
Corporate Source: Philips Res Lab, Aachen, Germany
Source: IEEE Transactions on Pattern Analysis and Machine Intelligence v 14 n 5 May 1992 p 586-595
Publication Year: 1992
CODEN: ITPIDJ ISSN: 0162-8828
Language: English
Document Type: JA; (Journal Article) Treatment: A; (Applications); T; (Theoretical); X; (Experimental)
Journal Announcement: 9209
Abstract: A most successful approach to recognizing continuous speech is to model the recognition problem as one of finding an optimal path through a finite state network. A comparison of two search strategies for finding the optimal path, dynamic programming and heuristic search, is presented. The comparison is based on theoretical considerations and experimental tests on a digit string task. 14 Refs.
Descriptors: *SPEECH--*Recognition; MATHEMATICAL PROGRAMMING, DYNAMIC; MATHEMATICAL TECHNIQUES--Heuristic; AUTOMATA THEORY--Finite Automata; DATABASE SYSTEMS
Identifiers: CONNECTED WORD RECOGNITION; HEURISTIC SEARCH; PATH FINDING PROBLEM; BRANCH-AND-BOUND SEARCH; FINITE STATE NETWORK
Classification Codes:
751 (Acoustics); 723 (Computer Software); 921 (Applied Mathematics); 721 (Computer Circuits & Logic Elements)
75 (ACOUSTICAL TECHNOLOGY); 72 (COMPUTERS & DATA PROCESSING); 92 (ENGINEERING MATHEMATICS)

2/5/21 (Item 4 from file: 8)
DIALOG(R)File 8:Ei Compendex*Plus(TM)

02962610 E.I. Monthly No: EI9010122641
Title: High-speed DP-matching algorithm based on frame synchronization, beam search and vector quantization.
Author: Sakoe, Hirokai; Fujii, Hiromi; Yoshida, Kazunaga; Watari, Masao
Corporate Source: NEC Corp, Kawasaki, Jpn

Source: Systems and Computers in Japan v 20 n 11 Nov 1989 p 33-45
Publication Year: 1989
CODEN: SCJAEP ISSN: 0882-1666
Language: English
Document Type: JA; (Journal Article) Treatment: T; (Theoretical); X; (Experimental)
Journal Announcement: 9010
Abstract: This paper discusses the high-speed DP-matching as the speech recognition algorithm including connected word sequence recognition. The first improvement is the frame synchronization. By this elaboration, an improvement of the speed by approximately one order of magnitude is achieved, compared with the consecutive word recognition of two-level DP-matching type, where DP-matching is iterated by assuming that any time in the input speech can be the word boundary. The second improvement is the introduction of the beam search. This paper discusses the practical aspects of combining the beam search and DP-matching. (Edited author abstract) 18 Refs.
Descriptors: *SPEECH--*Recognition; STATISTICAL METHODS--Time Series Analysis; MATHEMATICAL PROGRAMMING, DYNAMIC; AUTOMATA THEORY--Finite Automata
Identifiers: DP-MATCHING ALGORITHM; FRAME SYNCHRONIZATION; BEAM SEARCH; VECTOR QUANTIZATION
Classification Codes:
751 (Acoustics); 723 (Computer Software); 922 (Statistical Methods); 921 (Applied Mathematics); 721 (Computer Circuits & Logic Elements)
75 (ACOUSTICAL TECHNOLOGY); 72 (COMPUTERS & DATA PROCESSING); 92 (ENGINEERING MATHEMATICS)

2/5/22 (Item 5 from file: 8)
DIALOG(R)File 8:Ei Compendex*Plus(TM)

02226818 E.I. Monthly No: EIM8702-007840
Title: NEW DP MATCHING ALGORITHMS FOR CONNECTED WORD RECOGNITION.
Author: Watari, Masao
Corporate Source: NEC, Kawasaki, Jpn
Conference Title: ICASSP 86 - Proceedings, IEEE-IECEJ-ASJ International Conference on Acoustics, Speech, and Signal Processing.
Conference Location: Tokyo, Jpn Conference Date: 1986 Apr 7-11
Sponsor: IEEE Acoustics, Speech, and Signal Processing Soc, New York, NY, USA; Inst of Electronics & Communications Engineers of Japan, Jpn; Acoustical Soc of Japan, Jpn
E.I. Conference No.: 08988
Source: Proc ICASSP IEEE Int Conf Acoust Speech Signal Process 1986 Publ by IEEE, New York, NY, USA. Available from IEEE Service Cent (Cat n 86 CH2243-4), Piscataway, NJ, USA p 1113-1116
Publication Year: 1986
CODEN: IPRODJ ISSN: 0736-7791
Language: English
Document Type: PA; (Conference Paper)
Journal Announcement: 8702
Abstract: Two algorithms are proposed to overcome drawbacks of previous algorithms, such as the clockwise dynamic programming (CWDP) algorithm or the one-pass algorithm. In the first algorithm, called the blockwise DP matching (BWDP) algorithm, the calculation is carried out in step with a block having BL input pattern frames, instead of the one frame used in the CWDP algorithm. This reduces the number of memory access times to 1/BL.

However, it cannot handle finite-state-automation control with loop transition rules. In the other algorithm, called the slant-blockwise DP matching (SBDP) algorithm, the calculation block is inclined to the reference pattern time axis. Calculation is carried out in each slant block with BL frame width, making it possible to handle finite-state-automation control with loop transition rules. However, the program for this algorithm is rather complex. A further improvement that extends the effective block width is proposed that further reduces the number of memory accesses. 5 refs.

Descriptors: *SPEECH--*Recognition; COMPUTER PROGRAMMING--Algorithms; MATHEMATICAL PROGRAMMING, DYNAMIC; AUTOMATA THEORY--Finite Automata

Identifiers: CONNECTED-WORD RECOGNITION; BLOCKWISE DYNAMIC PROGRAMMING ALGORITHM; LOOP TRANSITION RULES; SLANT BLOCKWISE DYNAMIC PROGRAMMING ALGORITHM

Classification Codes:

751 (Acoustics); 723 (Computer Software); 721 (Computer Circuits & Logic Elements); 921 (Applied Mathematics)

75 (ACOUSTICAL TECHNOLOGY); 72 (COMPUTERS & DATA PROCESSING); 92 (ENGINEERING MATHEMATICS)

2/5/23 (Item 6 from file: 8)
DIALOG(R)File 8:Ei Compendex*Plus(TM)

01267996 E.I. Monthly No: EIM8301-000474

Title: Recognizable Sets of Biinfinite Words.

Title: ENSEMBLES RECONNAISSABLES DE MOTS BIINFINIS.

Author: Nivat, Maurice; Perrin, Dominique

Corporate Source: Univ de Paris 7, Fr

Conference Title: Proceedings of the 14th Annual ACM Symposium on Theory of Computing.

Conference Location: San Francisco, Calif, USA Conference Date: 1982 May 5-7

Sponsor: ACM, Spec Interest Group for Autom and Comput Theory, New York, NY, USA

E.I. Conference No.: 01346

Source: Conference Proceedings of the Annual ACM Symposium on Theory of Computing 14th. Publ by ACM, New York, NY, USA. Available from ACM Order Dep (Ord n 508820), Baltimore, Md, USA p 47-59

Publication Year: 1982

CODEN: CATCDQ ISBN: 0-89791-070-2

Language: French

Document Type: PA; (Conference Paper)

Journal Announcement: 8301

Descriptors: *AUTOMATA THEORY--*Finite Automata

Identifiers: RECOGNIZABLE SETS; BIINFINITE WORDS; FINITE BOOLEAN COMBINATIONS; DETERMINISTIC WORDS; TWO-SIDED INFINITE SEQUENCES; BIAUTOMATON; DETERMINISTIC BIAUTOMATON

Classification Codes:

721 (Computer Circuits & Logic Elements)

72 (COMPUTERS & DATA PROCESSING)

2/5/24 (Item 1 from file: 434)
DIALOG(R)File 434:SciSearch(R)

08890688 Genuine Article#: P1577 Number of References: 71
Title: MULTINOMIAL MODELING AND THE MEASUREMENT OF COGNITIVE-PROCESSES
Author(s): RIEFER DM; BATCHELDER WH
Corporate Source: UNIV CALIF IRVINE,SCH SOCIAL SCI/IRVINE//CA/92717; CALIF STATE COLL SAN BERNARDINO/SAN BERNARDINO//CA/92407
Journal: PSYCHOLOGICAL REVIEW, 1988, V95, N3, P318-339
Language: ENGLISH Document Type: ARTICLE
Geographic Location: USA
Subfile: SocSearch; SciSearch; CC LIFE--Current Contents, Life Sciences; CC SOCS--Current Contents, Social & Behavioral Sciences
Journal Subject Category: PSYCHOLOGY
Research Fronts: 86-0858 001 (PRIMING IN AUDITORY LEXICAL DECISION; SEMANTIC ACTIVATION; WORD RECOGNITION IN EARLY READING; EPISODIC MEMORY MODEL; HIERARCHICAL LEVEL OF CATEGORIES)
86-1318 001 (RECOGNITION MEMORY; WORD RECALL; ALCOHOLIC ORGANIC BRAIN DISEASE; LEARNING WORDS; KORSAKOFF PATIENTS)
86-3563 001 (CONDITIONED SUPPRESSION; BACKWARD CONDITIONING TRIALS; RABBITS NICTITATING-MEMBRANE RESPONSE; REWARD CONTEXT; COMPOUND STIMULUS TRAINING)
86-6940 001 (STRUCTURAL MODELS; FACTORS IN THE ARBITRAGE PRICING MODEL; COVARIANCE STRUCTURE MODELING; PRINCIPAL COMPONENT ANALYSIS)
86-7002 001 (PETRI NETS; LINEAR TEMPORAL LOGIC; SYNCHRONIZATION FOR COMMUNICATING FINITE AUTOMATA)
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2/5/25 (Item 2 from file: 434)
DIALOG(R)File 434:SciSearch(R)

07830727 Genuine Article#: F4998 Number of References: 146
Title: KNOWLEDGE REPRESENTATION AND REASONING
Author(s): LEVESQUE HJ
Corporate Source: UNIV TORONTO,DEPT COMP SCI/TORONTO M5S 1A4/ONTARIO/CANADA/
Journal: ANNUAL REVIEW OF COMPUTER SCIENCE, 1986, V1, P255-287
Language: ENGLISH Document Type: REVIEW, BIBLIOGRAPHY
Geographic Location: CANADA
Subfile: SciSearch; CC ENGI--Current Contents, Engineering, Technology & Applied Sciences
Journal Subject Category: COMPUTER APPLICATIONS & CYBERNETICS
Research Fronts: 86-0348 003 (DATABASE DESIGN; RELATIONAL DATABASES; HUMAN COMPUTER INTERACTION; JOIN DEPENDENCIES)
86-4986 003 (KNOWLEDGE REPRESENTATION; EXPERT SYSTEMS; NATURAL-LANGUAGE PROCESSING)

86-0858 002 (PRIMING IN AUDITORY LEXICAL DECISION; SEMANTIC ACTIVATION; WORD RECOGNITION IN EARLY READING; EPISODIC MEMORY MODEL; HIERARCHICAL LEVEL OF CATEGORIES)
86-0958 002 (LOGIC PROGRAMMING; CONCURRENT PROLOG; PACKET BASED DEMAND DATA DRIVEN REDUCTION MODEL FOR THE PARALLEL EXECUTION)
86-4154 002 (LOGIC PROGRAMS; PROBLEM-ORIENTED INFERENTIAL DATABASE SYSTEM; PARTITION SEMANTICS)
86-5477 001 (EXPERT SYSTEMS IN DESIGN; RELIABLE REAL-TIME ROBOT OPERATION EMPLOYING INTELLIGENT FORWARD RECOVERY; ACCESSING KNOWLEDGE)
86-5810 001 (COMPLEXITY CLASSES; NON-UNIFORM POLYNOMIAL SPACE; AMBIGUITY OF FINITE AUTOMATA)
86-6967 001 (SELECTIVE ATTENTION TASK; ATTENTIONAL CAPACITY; READING DISORDERS; DUAL-TASK SITUATION; SEMANTIC ACTIVATION)
86-7930 001 (EXPERT SYSTEMS; ARTIFICIAL-INTELLIGENCE IN GEOGRAPHY; PROLOG TECHNOLOGY THEOREM PROVER)

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BRACHMAN R, 1982, P189, P NATL C AM ASS ARTI
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BRACHMAN R, 1985, READINGS KNOWLEDGE R
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BRACHMAN RJ, 1985, V9, P171, COGNITIVE SCI
BRACHMAN RJ, 1983, V16, P30, COMPUTER
BUNDY A, 1985, P93, PROGR ARTIFICIAL INT
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ZADEH LA, 1983, V16, P61, COMPUTER

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L3             6 S L2 AND APPLE
L4             2 S L3 AND ABBREVIAT?
L5            16 S 364/419.15/CCLS
L6            55 S L1 AND ABBREVIAT?
L7             6 S L6 AND APPLE
=> s l1 and apple
          6536 APPLE
L8          22 L1 AND APPLE
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22. 3,593,309, Jul. 13, 1971, METHOD AND MEANS FOR GENERATING COMPRESSED KEYS; William A. Clark, IV, et al., **364/419.1**, 951.1, 951.3, 955, 955.3, 956, 956.1, 958, 958.1, 958.3, 963, 963.1, 963.2, DIG.2 [IMAGE AVAILABLE]
=>

File 347:JAPIO OCT 1976-1995/DEC.
(c) JPO & JAPIO

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69 AD=930619
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?t4/5/1

4/5/1
DIALOG(R)File 347:JAPIO
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04704950
ELEVATOR FOR WHEELCHAIR

PUB. NO.: 07-025550 [JP 7025550 A]
PUBLISHED: January 27, 1995 (19950127)
INVENTOR(s): MIWA HIDEO
GOKO HIROSHI
APPLICANT(s): HITACHI BUILDING SYST ENG & SERVICE CO LTD [457860] (A Japanese Company or Corporation), JP (Japan)
APPL. NO.: 05-171532 [***JP 93171532***]
FILED: July 12, 1993 (19930712)
INTL CLASS: [6] B66B-001/14; B66B-003/00
JAPIO CLASS: 26.9 (TRANSPORTATION -- Other)

ABSTRACT

PURPOSE: To provide an elevator for a wheelchair, into whose car any wheelchair user can always and smoothly enter by appealing for cooperation of occupants having no special urgent reason to get off the car, when there is no sufficient space for the wheelchair in the car even though the wheelchair user is in his standby state.
CONSTITUTION: When a hall call for a wheelchair user 8 is registered, and it is judged that the load in a car 1 is at a prescribed level or more, an automatic announce device 11 is so operated, as informing general occupants 12 in the car of the intention of a wheelchair user 13 to get into the car, for appealing for their cooperation.
?ds

Set Items Description
S1 46 AD=930619 AND AC=JP/PR
S2 0 S1 AND AU=AIDA M?
S3 0 AN=JP 94171532

S4 1 AN=JP 93171532
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46 S1
1077 HANDWRITING
S5 0 S1 AND HANDWRITING
?s au=aida m? and handwriting
453 AU=AIDA M?
1077 HANDWRITING
S6 0 AU=AIDA M? AND HANDWRITING
?s au=aida m? and handwrit?
453 AU=AIDA M?
2264 HANDWRIT?
S7 1 AU=AIDA M? AND HANDWRIT?
?t7/5/1

7/5/1
DIALOG(R)File 347:JAPIO

04432090
WORD INPUT EDITING DEVICE

PUB. NO.: 06-075990 [JP 6075990 A]
PUBLISHED: March 18, 1994 (19940318)
INVENTOR(s): ***AIDA MITSUHIRO***
APPLICANT(s): SHARP CORP [000504] (A Japanese Company or Corporation), JP (Japan)
APPL. NO.: 05-156531 [JP 93156531]
FILED: June 28, 1993 (19930628)
INTL CLASS: [5] G06F-015/38; G06F-015/20; G06F-015/40
JAPIO CLASS: 45.4 (INFORMATION PROCESSING -- Computer Applications); 29.4 (PRECISION INSTRUMENTS -- Business Machines); 30.2 (MISCELLANEOUS GOODS -- Sports & Recreation)
JAPIO KEYWORD:R107 (INFORMATION PROCESSING -- OCR & OMR Optical Readers); R131 (INFORMATION PROCESSING -- Microcomputers & Microprocessers); R139 (INFORMATION PROCESSING -- Word Processors)
JOURNAL: Section: P, Section No. 1757, Vol. 18, No. 327, Pg. 162, June 21, 1994 (19940621)

ABSTRACT

PURPOSE: To improve the efficiency of a word input editing processing without relying on personal ability.

CONSTITUTION: This device is a word input editing device adding a judgement processing part (F008) which collates an input device such as a keyboard, a ***handwritten*** input, OCR, etc., an electronic dictionary and a code string on the way to an input inputted through the use of the input device with the code string of a word in the electronic dictionary at the requited time so as to judge whether or not the only one word whose head part coincides with the code string on the way to the input is contained in the electronic dictionary and a word output processing part (F010) outputting the word judged to be one word which is contained in the electronic dictionary by the judgement processing part. It is also preferable that the part of speech, etc., of the code string on the way to the input is

estimated and the coincidence of the part of speech is adopted as additional conditions at the time of collating with the word of the dictionary.

File 345:Inpadoc/Fam.& Legal Stat. 1996/UD=9617
(c) 1996 European Patent Office
*File 345: **WO records in PD=960321 are bad & will be replaced soon.**
Family displays are $12.50 ea. Country displays are $5.45 ea.

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1/5/1
DIALOG(R)File 345:Inpadoc/Fam.& Legal Stat.
(c) 1996 European Patent Office. All rts. reserv.

12105249
Basic Patent (No,Kind,Date): JP 6075990 A2 940318 <No. of Patents: 001>

PATENT FAMILY:
JAPAN (JP)
Patent (No,Kind,Date): JP 6075990 A2 940318
WORD INPUT EDITING DEVICE (English)
Patent Assignee: SHARP KK
Author (Inventor): AIDA MITSUHIRO
Priority (No,Kind,Date): JP 92171202 A1 920629
Applic (No,Kind,Date): JP 93156531 A 930628
IPC: * G06F-015/38; G06F-015/20; G06F-015/40
JAPIO Reference No: ; 180327P000162
Language of Document: Japanese
?t1/7/1

1/7/1
DIALOG(R)File 345:Inpadoc/Fam.& Legal Stat.
(c) 1996 European Patent Office. All rts. reserv.

12105249
No legal status available

SYSTEM:OS - DIALOG OneSearch
File 351:DERWENT WPI 1981-1996/UD=9618;UA=9614;UM=9606
(c)1996 Derwent Info Ltd
File 350:Derwent World Pat. 1963-1980/UD=9616
(c) 1996 Derwent Info Ltd

Set Items Description
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373909 INPUT
S2 36 HANDWRIT? AND TEXT AND INPUT
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864941 PY=1994/PB : PY=1996/PB
S3 16 S2 NOT PY=1994:1996/PB
?s s3 not pd=930628:931231/pb
16 S3
193715 PD=930628/PB : PD=931231/PB
S4 14 S3 NOT PD=930628:931231/PB
?ds

Set Items Description
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S4 14 S3 NOT PD=930628:931231/PB
?s s4 and dictionar?
14 S4
1398 DICTIONAR?
S5 1 S4 AND DICTIONAR?
?t5/35/1

5/35/1 (Item 1 from file: 351)
DIALOG(R)File 351:DERWENT WPI

008229118 WPI Acc No: 90-116119/15
Related WPI Accession(s): 92-000009
XRPX Acc No: N90-089932 *Image available*
Chinese and Japanese symbol definition device - uses qwerty keyboard for ***input*** base upon 8 basic character stroke order system to identify characters
Patent Assignee: (GARN/) GARNHAM A W; (THOM/) THOMAS R H; (GARN/) GARNHAM A ; (STOH/) STOHR H
Author (Inventor): THOMAS R H; STOHR H
Number of Patents: 010
Number of Countries: 031
Patent Family:

Patent No	Kind	Date	Week	Applic No	Date	LA	Pages	IPC
WO 9002992	A	900322	9015					(B)
AU 8942052	A	900402	9025					
CN 1041047	A	900404	9102					
GB 2238414	A	910529	9122	GB 8925476	890905			
AU 9173544	A	910620	9132					(NC)
JP 4502223	W	920416	9222	JP 89509291	890905		7	G06F-015/20
				WO 89AU379	890905			
GB 2238414	B	930428	9317	WO 89AU379	890905			G06F-003/023
				GB 9025476	890905			
AU 9454921	A	940414	9420	AU 9454921	940204			G06F-003/023 (NC)
				AU 8942052				

CA 1331057 C 940726 9432 CA 615436 890929 G06F-003/023 (NC)
AU 665293 B 951221 9607 AU 9454921 940204 G06F-003/023 (NC)
AU 8942052

Priority Data (CC No Date): AU 88247 (880905); AU 9454921 (940204); CA 615436 (890929)
Language: English
EP and/or WO Cited Patents: AU 7948259; GB 2060231; GB 2062916; GB 2066534; GB 2116341; GB 2118749; GB 2125197; US 4379288; US 4500872; US 4684926
Designated States
(National): AT; AU; BE; BG; BR; CH; DE; DK; FI; GB; HU; JP; KP; KR; LK; LU ; MC; MG; MW; NL; NO; OA; RO; SD; SE; SU; US
(Regional): AT; BE; CH; DE; FR; GB; IT; LU; NL; SE
Filing Details: AU0665293 Previous Publ. AU 9454921; JP04502223 Based on WO 9002992; GB2238414 Based on WO 9002992
Abstract (Basic): WO 9002992 A

The workprocessor for Chinese characters has a display and a keyboard which contains eight entry keys (31 to 38) each of which represents one of the character stroke forms used as the basic for Chinese character writing. A character memory unit stores the characters in the form of a string of character stroke form codes, along with the conventional entry order.

The netry keys are pressed in the conventional stroke entry order, and any characters not including strokes in the entered order are discarded by a selection process until the desired character, or a small selection of characters is defined. The stroke count of the character is also used as a search criterion for the character to be entered.

USE/ADVANTAGE - Allows a conventional QWERTY keyboard to be used to ***input*** Chinese character writing, and permits ***dictionaries*** of characters to be searched. @(26pp Dwg.No.4/7)@

Abstract (US): 9309 US 5187480 A

A computer processor comprises a central processing unit to which are connected a program memory, a character memory, a display unit and a printer. The character memory is searched by entering through ***input*** entry keys of a keyboard search criteria including the entered ideographic character stroke-type categories and the order in which the character stroke-type categories are entered through the ***input*** entry keys.

Upon entry of the search criteria, data relevant to the graphic representation of the ideographic character or data relevant to the graphic representations of a number of the ideographic characters which meet the search criteria, is retrieved from the program memory and the graphic representations are displayed by the display unit.

ADVANTAGE - Suitable for all Chinese characters and does not require large keyboard.

Dwg.1a/11

Abstract (GB): 9317 GB 2238414 B

A computer processing apparatus for assembling ***text*** in ideographic language characters, said computer processing apparatus comprising: a memory including character stroke data storage means which stores data representative of ideographic character stroke-type categories, each category of which is characterised by the size of the character stroke in the category and the direction of forming the

character stroke in the category when conventionally ***handwritten***, and data representative of ideographic characters, including data representative of the order in which character strokes of respective ideographic characters are ***handwritten***, and graphic data storage means which stores and from which can be retrieved data representative of the graphic representations of each said ideographic characters; display means for displaying ideographic characters retrieved from said graphic data storage means; entry means providing a plurality of entry designations including character stroke-type category entry designations designated by indicating means indicative of respective ones of said ideographic character stroke-type categories, and selection means for selecting one of a plurality of characters displayed by said display means; and processing means adapted to search said character stroke data storage means on entry through said entry designations of search criteria including the entered ideographic character stroke-type categories and the order in which the character stroke-type categories are entered through said entry designation whereby data relevant to the graphic representation of the ideographic character or of a plurality of the ideographic character which meet said search criteria is retrieved from the corresponding graphic data storage means and the or each graphic representation displayed by said display means

File Segment: EPI
Derwent Class: T01; T04; U21;
Int Pat Class: G06F-003/02; G06F-003/023; G06F-015/20; H03M-011/00
Manual Codes (EPI/S-X): T01-J; T04-F02; U21-A05D1
?ds

Set	Items	Description
S1	0	PN=JP06075990
S2	36	HANDWRIT? AND TEXT AND INPUT
S3	16	S2 NOT PY=1994:1996/PB
S4	14	S3 NOT PD=930628:931231/PB
S5	1	S4 AND DICTIONAR?

?s s4 not s5
14 S4
1 S5
S6 13 S4 NOT S5
?t6/35/1-13

6/35/1 (Item 1 from file: 351)
DIALOG(R)File 351:DERWENT WPI

009221992 WPI Acc No: 92-349415/42
XRPX Acc No: N92-266557 *Image available*
Pen-based processor to ***input*** and edit script - processes script or binary-encoded-characters and moving space insertion mode with bit-mapped images and drawings
Patent Assignee: (FORC/) FORCIER M D
Author (Inventor): FORCIER M D
Number of Patents: 004
Number of Countries: 016
Patent Family:

Patent No Kind Date Week Applic No Date LA Pages IPC
WO 9216900 A1 921001 9242 WO 92US2407 920319 Eng 137 G06F-015/20 (B)
US 5220649 A 930615 9325 US 673292 910320 64 G06F-015/62
US 693316 910429
US 5220649 A 930615 9325 US 673292 910320 64 G06F-015/62
US 693316 910429
US 5231698 A 930727 9331 US 673292 910320 61 G06F-015/62

Priority Data (CC No Date): US 673292 (910320); US 693316 (910429)
Language: English
EP and/or WO Cited Patents: US 3739348; US 3750112; US 4723209
Designated States
(National): JP
(Regional): AT; BE; CH; DE; DK; ES; FR; GB; GR; IT; LU; MC; NL; SE
Abstract (Basic): WO 9216900 A

The ***text*** based computer allows ***input*** and edit script in a form resembling a pad and pencil. Editing and manipulating of glyphs including ***handwritten*** script ASCII ***text***, bit mapped images and drawings uses a compatible internal representation of the data and a consistent set of user controls. The functions are intuitive and interactive gestures. A two step gesture distinguishes between strokes and command gestures.

Word boundaries determine word editing functions such as word wrap and data can be inserted without acquiring additional open writing spaces. Output can be printed or use FAX or LAN.

USE - Pen type display on hand held PC.

Dwg.1/11

Abstract (US): 9331 US 5231698 A

A pen-based processor needs to be usable to ***input*** and edit script in the manner of a ***text***-based computer but retain a resemblance to the user much like a pad and pencil. The pen-based computer implements enable ***input***, editing and other manipulation of ***handwritten*** script, ASCII ***text*** and drawings in a common document using a compatible internal representation of the data and a simple, consistent set of user control functions. These functions are invoked by the user with an intuitive and interactive set of user gestures which do not distract the user from the task of inputting or editing the document. A two-step gesture method avoids confusion between strokes and command gestures and allows similar gestures to be used for different functions within the same and different contexts. The system infers from customary user writing conventions that certain relationships of data are to be preserved and maintains the relationships, subject to user override, during editing. The display document is formatted to contain both lined areas of script, ***text*** and imbedded drawings that can be edited, including word wrapping, and adjoining unlined drawing areas that remain unaffected by editing of lined area contents.

USE/ADVANTAGE - For entry and editing of script, ***text*** and drawings in a document display. Enables user to enter script continually, writing on a single physical line, enables simple page layout operations, enables editing by simple corrections, enables jotting down notes by engineers, lab. workers, students and doctors. Recognises stroke/ASCII character cluster.

Dwg.7/11 9325 US 5220649 A

The computer implements ***input***, editing and other manipulation of glyphs including ***handwritten*** script, ASCII test, bitmapped images and drawings in a common document, using a compatible internal representation of the data and a simple, consistent set of user control functions. These functions are invoked using an intuitive and interactive set of user gestures which do not distract the user from the task of inputting or editing the document. A two-step gesture method avoids confusion between strokes and command gestures and allows use of similar gestures for different functions within the same and different contexts. The system infers from customary user writing conventions that certain relationships of data are to be preserved and maintains the relationships, subject to user override, during editing. The display document is formatted to contain both lined areas of glyphs that can be edited, including insertion of a moving space into pre-existing document ***text*** and word wrapping. Adjoining unlined drawing areas are unaffected by editing of lined area contents.

Dwg.7,8/11

File Segment: EPI
Derwent Class: T01;
Int Pat Class: G06F-015/20; G06F-015/62
Manual Codes (EPI/S-X): T01-J11A

6/35/2 (Item 2 from file: 351)
DIALOG(R)File 351:DERWENT WPI

009074494 WPI Acc No: 92-201913/25
Related WPI Accession(s): 95-139259
XRPX Acc No: N92-152801 *Image available*

Identifying ***handwritten*** annotations and machine printed ***text*** in image - using image pixel converting separation mask in conjunction with original image to produce separate annotations and ***text*** images

Patent Assignee: (XERO) XEROX CORP
Author (Inventor): BLOOMBERG D S
Number of Patents: 006
Number of Countries: 008
Patent Family:

Patent No	Kind	Date	Week	Applic No	Date	LA	Pages	IPC
EP 490687	A2	920617	9225	EP 91311579	911212	Eng	42	G06K-009/20 (B)
CA 2057243	A	920614	9236	CA 2057243	911206			G06K-009/00
BR 9105295	A	920818	9238	BR 915295	911209			G06K-007/10
US 5181255	A	930119	9306	US 627284	901213		36	G06K-009/34
EP 490687	A3	931110	9512	EP 91311579	911212			G06K-009/20
JP 7114618	A	950502	9526	JP 91324241	911209		38	G06K-009/20

Priority Data (CC No Date): US 627284 (901213)
Language: English
EP and/or WO Cited Patents: No-SR.Pub; 1.Jnl.Ref; EP 288266 A; US 4516262 A; US 4821333 A; US 5048109 P
Designated States (Regional): DE; FR; GB; IT

Abstract (Basic): EP 490687 A

Handwritten annotation areas are identified from machine printed ***text*** areas by morphologically processing a region of the ***input*** image to produce a destination image. The destination image identifies only the machine printed ***text*** areas or ***handwritten*** annotation areas.

A structuring element is used to selectively identify the machine printed ***text*** or the ***handwritten*** annorations and produce an intermediate image. The intermediate image is used in conjunction with the original image to produce separate ***handwritten*** annotations and machine printed ***text*** images.

ADVANTAGE - Requires limited amounts of computer memory and processing time.

Dwg.1c/8

Abstract (US): 9306 US 5181255 A

In a digital processor, a method of identifying ***handwritten*** annotation areas of an ***input*** image having ***handwritten*** annotation areas and machine printed ***text*** areas includes morphologically processing a region of the ***input*** image having a ***handwritten*** and machine printed characters to produce a destination image. The deistination image identifies only the machine printed ***text*** or the ***handwritten*** annotations areas. Regions of machine printed ***text*** or ***handwritten*** annotations are processed with a structuring element (SE) which selectively identifies the machine printed ***text*** or ***handwritten*** annotations to produce a first intermediate image.

Identifying the regions further involves closing the first intermediate image with an Se having two horizontally adjacent ON pixels to produce a second intermediate image. The ***input*** image is exclusive ored with the second intermediate image.

ADDVANTAGE - Provices reliable results and requires relatively inexpensive hardware.

Dwg.1b/8

File Segment: EPI

Derwent Class: T04;

Int Pat Class: G06K-007/10; G06K-009/20; G06K-009/34; G06K-009/62; H04N-001/387; H04N-001/40

Manual Codes (EPI/S-X): T04-D07E

6/35/3 (Item 3 from file: 351)

DIALOG(R)File 351:DERWENT WPI

008842725 WPI Acc No: 91-346741/47

XRPX Acc No: N91-265495 *Image available*

Hybrid information management system for ***handwriting*** and ***text*** - has transparent digitising tablet mounted on flat panel display screen to hand-write to display with attached pen

Patent Assignee: (NORW/) NORWOOD D D

Author (Inventor): NORWOOD D D

Number of Patents: 002

Number of Countries: 001

Patent Family:

Patent No Kind Date Week Applic No Date LA Pages IPC
US 5063600 A 911105 9147 US 523230 900514 (B)
US RE34476 E 931214 9350 US 523230 900514 35 G06K-009/00
US 889664 920528

Priority Data (CC No Date): US 523230 (900514); US 889664 (920528)
Filing Details: US0034476 Reissue of US 5063600
Abstract (Basic): US 5063600

The computer system used with special ***input*** hardware provides the benefits of computerisation to ***handwritten*** as well as keyboard entered information to meet a wide spectrum of commonly occurring written information processing needs. The ***input*** hardware consists of a transparent digitising tablet mounted on a flat panel display screen such that a user can ***handwrite*** directly upon the display screen such that a user can ***handwrite*** directly upon the display screen with an attached pen.

Applicatoin program functions include appointment documentation and work scheduling, ***handwritten*** or ***text*** file creaction and creation and manipulation, author-to-typist liaison functions for document production, ' ***handwritten*** annotation to ***text***, ***handwritten*** note creation from ***text***, and ***text*** document creation from ***handwritten*** source material.

ADVANTAGE - More user fried friendly. Reduced complexity. Reduced limitations. @(35pp Dwg.No.4/17

Abstract (US): 9350 US RE34476 E

The computer system used with special ***input*** hardware for providing the benefits of computerisation to ***handwritten*** as well as keyboard entered information to meet a wide spectrum of commonly occurring, written information processing needs. The ***input*** hardware consists of a transparent digitising tablet mounted on top of a flat panel display screen so that a user can ***handwrite*** directly upon the display screen with an attached pen.

Application program functions include appointment documentation and work scheduling, ***handwritten*** or ***text*** file creation and manipulation, author-to-typist liaison functions for document prodn., ***handwritten*** annotation to ***text***, ***handwritten*** note creation from ***text***, and ***text*** documentation creation from ***handwritten*** source material.

ADVANTAGE - Allows both entry of ***handwritten*** data into computer and operation of computer by pen. Can be operated by conventional keyboard.

Dwg. 1a,b/1

File Segment: EPI
Derwent Class: T01; T04; R28;
Int Pat Class: G06K-009/00
Manual Codes (EPI/S-X): T01-C02B1; T04-D

6/35/4 (Item 4 from file: 351)
DIALOG(R)File 351:DERWENT WPI

008583406 WPI Acc No: 91-087438/12
Related WPI Accession(s): 90-320402

XRPX Acc No: N91-067554 *Image available*
Written information scanning with automatic data allocation - involves movements of optical reader in four directions corresp. to arithmetic rules or processing of ***text***
Patent Assignee: (HAUS/) HAUSER W A
Author (Inventor): HAUSER A W
Number of Patents: 001
Number of Countries: 022
Patent Family:
Patent No Kind Date Week Applic No Date LA Pages IPC
WO 9103021 A 910307 9112 (B)

Priority Data (CC No Date): CH 893393 (890919)
Language: German
EP and/or WO Cited Patents: 1.Jnl.Ref; US 4048617; US 4091270
Designated States
(National): AU; BR; CA; FI; JP; KP; KR; NO; SU; US
(Regional): AT; BE; CH; DE; DK; ES; FR; GB; IT; LU; NL; SE
Filing Details: WO9103021 (+19.08.89,26.08.89 -CH- 003009, 003081) (1455AT)
Abstract (Basic): WO 9103021 A
An optical readout device (1) features a read-in region (1) to which information may be ***handwritten*** from any of its four sides. It can be moved in any of the four directions (3-6) either manually or automatically in whole or in part.
Horizontally scanned figures may be added in movement from left to right, and substracted from right to left. Scanned ***text*** may be underlined or rendered into bold type.
USE/ADVANTAGE - For optical character recognition. Human information output and machine information ***input*** are improved with automatic allocation of ***handwritten*** material to arithmetic operations. @(13pp Dwg.No.1/1)@
File Segment: EPI
Derwent Class: T01; T04;
Int Pat Class: G06F-015/02
Manual Codes (EPI/S-X): T01-C02B; T01-J01; T04-D02

6/35/5 (Item 5 from file: 351)
DIALOG(R)File 351:DERWENT WPI

008554924 WPI Acc No: 91-058959/09
XRPX Acc No: N91-045679 *Image available*
Tablet for computerised symbol manipulation of ***handwritten*** formulae - enables display of interpreted ***input*** giving real-time feedback to user
Patent Assignee: (HOTZ/) HOTZ G
Author (Inventor): HOTZ G; MARZINKEWI R
Number of Patents: 001
Patent Family:
CC Number Kind Date Week
DE 3927372 A 910221 9109 (Basic)
Priority Data (CC No Date): DE 3927372 (890819)
Abstract (Basic): DE 3927372

A tablet for computerised manipulation of ***handwriting*** enables ***input*** of ***handwriting*** and maintenance of a standard notation allowing two-dimensional characters. The ***input*** device forms a unit with an output device so the whole system can be operated from one device by writing on a single surface.

The ***handwritten*** ***input*** is converted into standard characters after a short delay so that the writer has real-time feedback on whether the computer has correctly interpreted the ***handwriting***.

USE/ADVANTAGE - For rapid, reliable conversion of ***handwritten*** formulae, ***text*** and designs into representations accessible for computer processing and storage.@(4pp Dwg.No.1/1)@

File Segment: EPI
Derwent Class: T01; R27;
Int Pat Class: G06F-003/00
Manual Codes (EPI/S-X): T01-C; T01-C02; T01-C04

6/35/6 (Item 6 from file: 351)
DIALOG(R)File 351:DERWENT WPI

007767921 WPI Acc No: 89-033033/05
XRPX Acc No: N89-025190 *Image available*

Pseudo-character scanning system - has characters optically scanned to produce ***input*** corrected and printed

Patent Assignee: (SHAF) SHARP KK
Author (Inventor): YONEDA S; TSUJIOKA H; KAWAI S
Number of Patents: 002
Patent Family:

CC Number	Kind	Date	Week	
DE 3823622	A	890126	8905	(Basic)
DE 3823622	C	920220	9208	

Priority Data (CC No Date): JP 87174426 (870713)
Applications (CC,No,Date): DE 1823622 (680712); DE 3823622 (880712)
Abstract (Basic): DE 3823622

A scanner (1) for ***handwritten*** characters has a number of photoelectric cells that are arranged in a line that is moved along the characters to deliver images to a detector. The detector is in the form of a processor (3) that can identify the inclination of the characters and apply a correction to avoid a mis-interpretation of the information. The system operates with a memory (4) that stores the generated values and outputs to a printer (5) that produces aligned ***text***.

ADVANTAGE - Provides correction for variations in character alignment. @(9pp Dwg.No.6/12

Abstract (DE): 9208 DE 3823622

A pattern on a data carrier is read with the aid of a scanner, moving along a line of signs, in a selected direction, the pattern and the signs being in a fixed relation. A detector unit is used to detect an inclination of the signs in the pattern relative to the reading direction. The inclination of the signs relative to the reading direction and their displacement with respect to one another are corrected with the aid of a correction unit.

Each sign on the data carrier is surrounded by a uniform, rectangular pattern, read with the sign, and the detector unit determines the inclination of each pattern relative to the reading direction. The correction unit aligns the patterns to one another in the process of correction. The patterns are then finally erased.

USE/ADVANTAGE - For reading ***handwritten*** texts. Signs are read correctly even when hand gives scanner wave-like movement. @(9pp)@

File Segment: EPI
Derwent Class: T04; R28;
Int Pat Class: G06K-009/62
Manual Codes (EPI/S-X): T04-D04

6/35/7 (Item 7 from file: 351)
DIALOG(R)File 351:DERWENT WPI

007452315 WPI Acc No: 88-086249/13
XRPX Acc No: N88-065104 *Image available*

Automatic recognition method for manuscript ***text*** - uses identification of characteristics of segments of ***handwriting*** and associates these with known ***handwriting***-segment sequences

Patent Assignee: (ANAT-) ANATEX
Author (Inventor): MAURY X
Number of Patents: 004
Patent Family:

CC Number	Kind	Date	Week	
EP 261997	A	880330	8813	(Basic)
FR 2604004	A	880318	8818	
US 5050219	A	910917	9140	
CA 1293807	C	911231	9208	

Priority Data (CC No Date): FR 8612692 (860911); EP 87400911 (870417)
Applications (CC,No,Date): US 436457 (891114)
Language: French
EP and/or WO Cited Patents: 4.Jnl.REF
Designated States (Regional): AT; BE; CH; DE; ES; FR; GB; GR; IT; LI; LU; NL; SE
Filing Details: US5050219 (+08.09.87-US-093825) (1870TC)
Abstract (Basic): EP 261997

The automatic reading procedure applies predetermined criteria to a manuscript trace, or to elements of this trace, so that several characteristics of the manuscript may be determined. The characteristics thus determined are compared with characteristics of known elements of ***handwriting***, allowing identification of an element of a trace when comparison of the characteristics gives a predetermined result.

The procedure operates adaptively, estabilishing, the sequence of comparison operations as a function of characteristics determined by application of the test criteria to elements of the trace.

USE/ADVANTAGE - Direct automatic reading of manuscript ***text*** for computer ***input***. Allows writing tablet to replace keyboard, facilitating ***input*** to computer. @(35pp Dwg.No.1/12)@

Abstract (US): 9140 US 5050219

The method of recognition of ***handwriting*** consisting in

applying predetermined criterions to a tracing of ***handwriting*** or to elements of this tracing so that several characterising features of this tracing or of these elements to be determined. These characterising features are compared to determined to characterising features representative of known elements of writing and identifying one element of the tracing with one known element of writing when the comparison of their characterising features gives a predetermined result.

The setting up of a sequence of predetermined operating steps in accordance with predetermined characterising features by applying criterions to the tracing elements.

ADVANTAGE - For microcomputer systems. @(15pp

File Segment: EPI
Derwent Class: T04; R28;
Int Pat Class: G06K-009/68
Manual Codes (EPI/S-X): T04-D04

6/35/8 (Item 8 from file: 351)
DIALOG(R)File 351:DERWENT WPI

007389248 WPI Acc No: 88-023183/04
Related WPI Accession(s): 95-124811; 95-124812
XRPX Acc No: N88-017568 *Image available*
Handwritten keyboard-less-entry computer system - inputs signals to utilisation device representative of character produced user and provides visual representation of output signals
Patent Assignee: (GRID-) GRID SYSTEMS CORP; (ASTR-) AST RES INC; (LINU-) LINUS TECHN INC; (SKLA/) SKLAREW R
Author (Inventor): SKLAREW R C; SKLAREW R; SKRAREW R
Number of Patents: 016
Number of Countries: 013
Patent Family:

Patent No	Kind	Date	Week	Applic No	Date	LA	Pages	IPC
EP 254561	A	880127	8804	EP 87306504	870723	Eng	45	(B)
GB 2193827	A	880217	8807	GB 8717453	870223			
FR 2602069	A	880129	8812					
US 4972496	A	901120	9049	US 29772	870324			
GB 2234101	A	910123	9104	GB 8719253	870723			
GB 2234102	A	910123	9104	GB 8719254	870723			
GB 2193827	B	910410	9115					
GB 2234101	B	910424	9117					
GB 2234102	B	910424	9117					
CA 1302572	C	920602	9228	CA 542443	870717			G06F-003/02
US 5157737	A	921020	9245	US 889513	860725		43	G06K-009/00
				US 29772	870324			
				US 523447	900514			
KR 9202255	B1	920320	9345	KR 878091	870724			G06F-003/033
CA 1325481	C	931221	9406	CA 542443	870717			G06F-003/02
				CA 616317	920225			
US 5297216	A	940322	9411	US 889513	860725		42	G06K-009/00
				US 29772	870324			
				US 523447	900514			

US 775167 911011
US 5365598 A 941115 9445 US 889513 860725 43 G06K-009/00
US 29772 870324
US 523447 900514
US 902409 920619
SG 9400549 A 950317 9522 SG 94549 940422

Priority Data (CC No Date): US 29772 (870324); US 889513 (860725); US 523447 (900514); US 775167 (911011); US 902409 (920619)
Language: English
EP and/or WO Cited Patents: 4.Jnl.Ref; A3...8942; JP 58096382; No-SR.Pub; US 3699439; US 4055726
Designated States (Regional): DE; FR; GB; IT; NL; SE
Filing Details: US5297216 Cont of US 4972496; US5297216 Div ex US 5157737; US5365598 Cont of US 4972496; US5365598 Cont of US 5157737; SG9400549 Previous Publ. GB 2193827

Abstract (Basic): EP 254561 A

The computer-system has a display device for providing a visual display of a graphical character in response to output signals provided by utilisation device. An ***input*** screen produces a train of ***input*** signals as a graphical character or symbol and is sketched by a user. The ***input*** screen appts. screen comprises a translucent ***input*** screen having top and bottom surfaces.

The bottom surface is disposed w.r.t. the display surface such that the visual display produced by the display device is visible from the top surface of the ***input*** screen. The identity of the graphical character is determined, and representative output signals are provided to the display device. Dwg.12/13

Abstract (US): 9445 US 5365598 A

The keyboardless entry computer system includes a transparent ***input*** screen that generates positional information when contacted by a stylus, and a display screen mounted physically below the ***input*** screen such that a character that is displayed can be seen below the ***input*** screen. The system includes a computer that has been programmed to compile the positional information into Strokes, to calculate Stroke characteristics, and then compare the Stroke characteristics with those stored in a database in order to recognize the symbol drawn by the stylus.

Key features of the system are: (1) transparent position sensing subsystem; (2) underlying display on which to mimic drawing of sensed positions and to show characters or symbols; (3) device to convert sensed positions first into plotted Points and then into recognized characters or symbols; and (4) device to "learn" to associate sensed ***input*** positions with a character or symbol.

USE/ADVANTAGE - Can recognise and display ***handwritten*** symbols and cause the computer to display font symbols and, if desired, to execute editing functions pursuant to editing symbols quickly, easily and at low cost.

Dwg.2/13 9411 US 5297216 A

The device for processing information includes a display device for predetermined ***text*** and a device for recognising digitised symbols, for displaying recognised characters on the display device and for executing commands corresponding to recognised command signals.

Commands are included for editing the predetermined ***text***. A digitiser is provided for digitising a ***handwritten*** symbol and a digitised symbol is provided to the device for recognising, the digitiser and display device being positioned one over the other to permit viewing of the predetermined ***text*** on the display while looking at the digitiser.

A window is created on the display device, upon execution of a predetermined command, in an area where no window appeared during a time prior to execution of the predetermined command. The window enters at least two ***handwritten*** symbols in the same window, for editing the predetermined ***text*** displayed on the display device.

USE/ADVANTAGE - Hand-written key-boardless entry computer system.

Dwg.2/13 9049 US 4972496

The keyboardless entry computer system includes a transparent ***input*** screen that generates positional information when contacted by a stylus, and a display screen mounted physically below the ***input*** screen such that a character that is displayed can be seen below the ***input*** screen. The system includes a computer that has been programmed to compile the positional information into Strokes, to calculate Stroke characteristics, and then compare the Stroke characteristics with those stored in a database in order to recognise the symbol drawn by the stylus.

Key features of the system are a transparent position sensing sybsystem; an underlying display on which to mimic drawing of sensed positions and to show characters or symbols; a device to convert sensed positions first into plotted Points and then into recognised characters or symbols; and a device to "learn" to associate sensed ***input*** positions with a character or symbol.

ADVANTAGE - Edits quickly and easily. @(40pp

Abstract (GB): GB 2234102

A ***handwriting*** character recognition apparatus comprising: a display means; hand held means for use by a user to write or draw a ***handwritten*** symbol on or over at least a portion of the display screen; digitising means for digitising a ***handwritten*** symbol written by a user with the hand held means to produce digitised signals; means for converting the digitised signals into one or more strokes and points defining the ***handwritten*** symbol; means for processing the characteristics of each stroke to determine the characteristics of (i) the length of the stroke, (ii) the average slope of the stroke, (iii) the stroke centroid's height above a predetermined base line, (iv) the rate of change in the slope of the stroke, and (v) the location of the centroid of the stroke compared to the location of the centroid of the ***handwritten*** symbol; and means for comparing the characteristics of the strokes with a database of characteristics of predetermined symbols to determine the best comparison with a predetermined symbol.

File Segment: EPI

Derwent Class: T01; T04;

Int Pat Class: G06F-003/02; G06F-003/033; G06F-015/21; G06K-009/22; G06K-011/06

Manual Codes (EPI/S-X): T01-C02B1; T04-D02; T04-E; T04-F02

6/35/9 (Item 9 from file: 351)

DIALOG(R)File 351:DERWENT WPI

004769379 WPI Acc No: 86-272720/42
XRPX Acc No: N86-203530
Digitising panel for ***text*** entry has multi-layer construction providing probe sensing display and control functions
Patent Assignee: (SIEI) SIEMENS AG
Author (Inventor): FAUST W; KAMMEL A
Number of Patents: 002
Patent Family:

CC Number	Kind	Date	Week	
DE 3511353	A	861009	8642	(Basic)
DE 3511353	C	890413	8915	

Priority Data (CC No Date): DE 3511353 (850328)
Abstract (Basic): DE 3511353
A digitising panel for entry of ***handwritten*** characters into a digital memory has an A4 format. The panel has a multi layer format with the top layer (1) being a transparent surface for entry of characters using a hand held pen (4). The layer has a contact matrix of sensor elements. The middle layer is configured as a matrix of small liquid crystal elements used to display the written characters.
The bottom layer is in the form of a control unit that contains a microprocessor, programme and data memories, ***input***/output units, power supply and communcations interface. The entered characters are converted into digital form for transmission to an external unit.
ADVANTAGE - Allows entered characters to be stored and displayed. @(18pp Dwg.No.2/6
Abstract (DE): 8915 DE 3511353
Handwritten data are entered into a data processing system using a digitising tablet that is constructed in the form of three layers. The top layer is produced as a matrix of contact elements that generate coordinate values to the control stage.
The centre layer is in the form of a corresponding matrix of display elements of an LCD type that display the ***handwritten*** characters in point contact form. The base layer is the control unit and has a microcomputer, programme and data memories, I/o controller and a power supply.
USE/ADVANTAGE - As compact digitising tablet for entry of ***handwritten*** characters. @(8pp)@
File Segment: EPI
Derwent Class: T01; T04; R27; R28
Int Pat Class: G06F-003/02; G06K-011/06
Manual Codes (EPI/S-X): T01-C02; T04-E

6/35/10 (Item 10 from file: 351)
DIALOG(R)File 351:DERWENT WPI

004722196 WPI Acc No: 86-225538/34
XRPX Acc No: N86-168293
Hand-held computer ***input*** device for ***handwritten*** characters simultaneously produces ***handwritten*** copy on suitable writing

surface and stores within memory
Patent Assignee: (TYBA-) TYBAR ENG PTY LTD; (MACA/) MACAULEY J M
Author (Inventor): MACAULEY J M
Number of Patents: 003
Patent Family:

CC Number	Kind	Date	Week	
WO 8604704	A	860814	8634	(Basic)
AU 8653916	A	860826	8646	
EP 210237	A	870204	8705	

Priority Data (CC No Date): AU 85871 (850604); AU 859093 (850131); AU 8653916 (860000)
Applications (CC,No,Date): WO 86AU20 (860130); EP 86901014 (860130)
Language: English
EP and/or WO Cited Patents: US 4525032; US 4529959; US 4397033; US 4393268; US 4475240; US 4513437; CA 1145474; DE 3225526
Designated States
(National): AU; JP; SU; US
(Regional): AT; BE; CH; DE; FR; GB; IT; LU; NL; SE; LI
Filing Details: EP0210237 (Based on WO8604704) (1806GT)
Abstract (Basic): WO 8604704

The device includes a detector sensing direction of movement of the device across a writing surface. The device further includes a writing tip e.g. pencil or felt tip, or alternatively a nib or ball supplied with ink from a reservoir. The detector comprises light responsive sensors focussed to detect ink or lead left by the device on the writing surface. The detector includes switch contacts inside the device actuable by a pivotted switch blade, and feeler wires surrounding the ink reservoir angular movement of which is detected. Pref. each wire is formed from a spring metal and is deflected from its undeflected position when contacted by the ink reservoir.

The feeler wires may be coupled, directly or indirectly, to I/O lines or an expansion bus of a computer in order that the directional changes may be interrupted. The director includes optical sensors and an optical source coupled for movement of the writing tip. Thus changes in direction of the tip will cause the partic. sensor to be activated. The device may include a small computer for determining the ***handwritten*** characters from analysers of the directions. A memory stores a ***text*** translated by the computer.

ADVANTAGE - No digitising tablet for computer ***input***. Alleviated writing of characters in partic. manner. @(27pp Dwg.No.1/12)@

File Segment: EPI
Derwent Class: T04; R27; R28;
Int Pat Class: G06F-003/03; G06K-009/68; G06K-011/06
Manual Codes (EPI/S-X): T04-E; T04-F02

6/35/11 (Item 11 from file: 351)
DIALOG(R)File 351:DERWENT WPI

004591843 WPI Acc No: 86-095187/15
XRPX Acc No: N86-069763
Automatic editing and adjustment system for ***handwritten***

text images uses processing algorithm to identify groups and to smooth random fluctuations in ***handwritten*** information

Patent Assignee: (IBMC) INT BUSINESS MACHINES CORP ; (IBMC) IBM CORP; (IBMC) INT BUSINESS MACHINES CORP

Author (Inventor): FOX A S; GREANIAS E C; KIM J; TAPPERT C; TAPPERT C C

Number of Patents: 005

Number of Countries: 006

Patent Family:

Patent No	Kind	Date	Week	Applic No	Date	LA	Pages	IPC
EP 176715	A	860409	8615			Eng	35	(B)
CA 1223366	A	870623	8729					
US 4727588	A	880223	8811	US 917280	861009			
EP 176715	B1	920715	9229	EP 85110144	850813	Eng	21	G06F-015/66
DE 3586342	G	920820	9235	DE 3586342	850813			G06F-015/66
				EP 85110144	850813			

Priority Data (CC No Date): US 655174 (840927); US 917280 (861009)

Language: English

EP and/or WO Cited Patents: 1.Jnl.Ref; A3...8912; EP 69196; No-SR.Pub; US 4440513

Designated States (Regional): DE; FR; GB; IT

Filing Details: DE3586342 Based on EP 176715

Abstract (Basic): EP 176715

The system comprises an x-y tablet (80) and stylus (84) inputting a ***handwritten*** image as X-Y coordinate signals for display on a screen or other output device. The processing algorithm includes logic for collocating the coordinate signals into gross discrete groups, but without identifying the data significance of such groups - corresponding to the structural grouping of the ***handwritten*** image ***input***.

Structural data is determined from the coordinate signals relating to each group and to sets of such groups. From this data, the output image is adjusted to linear and spatial uniformity.

ADVANTAGE - Improved processing of ***handwritten***, textual and diagramatic information. @(35pp Dwg.No.6a/6)@

Abstract (US): 8811 US 4727588

The ***text*** adjustment and editing system employs an electronic tablet and an all-points-addressable display to create ***handwritten*** images of documents which may be easily edited and then stored within an information processing system. The data may be subsequently transmitted to one or more recipients equipped with suitable all-points addressable displays. By using editing and automatic formatting techniques, the representation of the image data in the system and in the output device is altered and presented in a more legible manner consistent with conventional ***text*** presentation.

Examples of editing carried out by the present invention are deletion and insertion operations on data components. Examples of formatting are paragraph indentation, word separation, and baseline drift correction. @(13pp

Abstract (EP): 9229 EP 176715 B

A data ***input*** and display system of the type in which an ***input*** stylus (84) is used to enter a series of ***handwritten***

strokes into an x-y tablet (80) wherein the strokes are converted into coordinate signals, said series of strokes later being segmented into a series of words for display on a display screen, said system being characterised by: a stroke extremity detector (12) to store current extremity values of a new stroke during a period of time when said ***input*** stylus (84) is in contact with said tablet (80), the current extremity values being obtained from the maximum and minimum components of the coordinate signals corresponding to said stroke; a compare system (14) for receiving said current extremity values and comparing same with old extremity values corresponding to a present word and obtained from a word extremity memory (19), so as to determine whether said new stroke lies outside a predetermined zone of proximity derived from said old extremity values; wherein if said new stroke lies within said zone it is classed as forming part of said present word, and if said new stroke lies outside said zone it is classed as the first stroke of a new word, said present word then being classed as a preceding word.

Dwg.1/6

File Segment: EPI
Derwent Class: T01; R27; R28
Int Pat Class: G06F-015/66; G06K-009/42
Manual Codes (EPI/S-X): T01-J09

6/35/12 (Item 12 from file: 351)
DIALOG(R)File 351:DERWENT WPI

004477506 WPI Acc No: 85-304384/49
XRPX Acc No: N85-226301

Computer keyboard emulator allows hand written characters to be converted into keyboard format for ***input*** to computer

Patent Assignee: (PENC-) PENCEPT INC
Author (Inventor): WARD J R; NILSSEN A H
Number of Patents: 003
Patent Family:

CC Number	Kind	Date	Week	
DE 3505117	A	851128	8549	(Basic)
US 4562304	A	851231	8604	
DE 3505117	C	880505	8818	

Priority Data (CC No Date): US 613099 (840523)
Applications (CC,No,Date): DE 3505117 (850214)
Abstract (Basic): DE 3505117

The system provides emulation of a computer keyboard to allow ***text*** ***input*** using a hand writing ***input*** terminal (11). The emulator system (31) is located between the hand written ***input*** unit and the system computer (13) which is programmed to accept standard keyboard character coding.

The hand written data represents character information together with line and column data to define the position of a character. The three data components are entered into registers (35,37,39). Character data is transferred into a line buffer (63), using signals from a control stage (37). The control stage responds to the line and column position data siqnals generated by processing modules (45,51). A

sampling stage (69) transmits the character data to the system computer.

ADVANTAGE - Allows ***handwritten*** ***input*** without modification of system computer. @(43pp Dwg.No.1/2)@

Abstract (US): 8604 US 4562304

Appts. emulating computer keyboard ***input*** from a handprint terminal, uses output from the handprint terminal comprising character data along with row and column position data for each character. A line buffer memory temporarily holds characters from the same row.

While the characters belonging to any given row are stored in the line buffer memory, local editing may be performed to delete and/or add and/or change characters, function signals being delivered equivalent to function signals that would be delivered from a keyboard. When a character received is in a different row from the character preceeding it, the line buffer memory is cleared of all previous characters loaded into it and carriage return or carriage-up signals are delivered from the control unit corresp. to the row change. The character is then loaded into the line buffer memory to start a new row. @(9pp

Abstract (DE): 8818 DE 3505117

A line buffer memory has a series of storage cells for character data contained in a single line. A comparison network compares the line and column positions of each character with those of the preceding character and transmits the result of the comparison to a control unit. A scanner controlled by the control units loads the character data, for each line into the line buffer memory at locations corresp. to their column positions. A second scanner is provided to read out the data consecutively from the memory locations. The comparison network pref. consists of a line difference calculator, a line comparator, a line difference counter, a column difference calculator, a column comparator and a column difference counter.

USE/ADVANTAGE - ***Handwriting*** ***input*** terminal for computer. Converts character data into form similar to keyboard entry. @(10pp)@

File Segment: EPI

Derwent Class: T01; T04; R27; R28

Int Pat Class: G06F-003/02; G06K-009/10; G06K-011/06

Manual Codes (EPI/S-X): T01-C02; T04-F01

6/35/13 (Item 13 from file: 351)

DIALOG(R)File 351:DERWENT WPI

003353347 WPI Acc No: 82-L1369E/34

Speech synthesiser accepting normal ***handwriting*** converts ***text*** into phonetic spelling and then into speech using phoneme memory

Patent Assignee: (HEIN-) HEINRICH-HERTZ-INST; (GROS/) GROSSMANN E

Author (Inventor): GROSSMANN E

Number of Patents: 005

Patent Family:

CC Number	Kind	Date	Week	
EP 58130	A	820818	8234	(Basic)
DE 3105518	A	820819	8234	

CA 1172365 A 840807 8436
EP 58130 B 860716 8629
DE 3271965 G 860821 8635
Priority Data (CC No Date): DE 3105518 (810211)
Applications (CC,No,Date): EP 82730011 (820211)
Language: German
EP and/or WO Cited Patents: No.SR.Pub; US 3892919; 4.Jnl.REF
Designated States
(Regional): AT; CH; DE; FR; GB; LI
Abstract (Basic): The speech synthesiser converts electrical signals describing entered texts into human speech. The synthesiser's vocabulary is unlimited and uses 100 phonetic elements stored in a 22 kbyte memory.

40 phonetic elements are used for single discrete sounds and 50 elements for transition sounds. The elements for voiced transition sounds and voiced discrete sounds possess special given sample valuesthat can be used to alter sound amplitude either once or more often in order to preserve the character of the sound. Words have to be entered in phonetic spelling. A transcription system allows normal ***handwritten*** texts to be entered for conversion into written sequences of phonetic elements which are then converted into speech. (29pp Dwg.No.1/12)
Abstract (EP): 8629 EP 58130

A method for the synthesis of speech with an unlimited vocabulary in the time domain from sound elements which are obtained from natural speech samples and are coded with low redundancy in digital form, stored and also reduced in length, in each case to the significant area of the relevant time signal typical of the sound, and in number, by utilising related sounds which are mutually transformable into each other, having regard to the necessary storage space requirement, these sound elements being linked with respect to the form, number and sequence requored, into digital signal sequences on the basis of ***input*** commands and of predetermined rules of linkage for the purposes of speech synthesis, these signal sequencies being used to generate, by means of digital/analog conversion and controllable amplification, soundwaves which can be perceived as speech, characterised in: providing a total of about 100 sound element, that is to say - about 50 elements for transitions sounds with anaverage of 240 samples each for an output frequency of 8 kHz, and about 40 elements for phonemes with an average of 500 samples for unvoiced and 140 samples for voiced phonemes each and an output frequency of 8 kHz, and enabling the pitch to be varied for reproducing, in the case of the elements for the voiced transition sounds and phonemes, by omitting or using at least once, as a result of appropriate ***input*** commands, those samples and/or values which are preset as suitable by means of marker words at discrete positions in the time signal, depending on requirement, when the digital signal sequences are being formed. @(16pp)@
File Segment: EPI
Derwent Class: W04; P86;
Int Pat Class: G10L-001/08; G10L-005/04
Manual Codes (EPI/S-X): W04-V

File 347:JAPIO OCT 1976-1995/DEC.
(c) JPO & JAPIO

Set Items Description
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S4 1 PN=06-171532
?t4/5/1

4/5/1
DIALOG(R)File 347:JAPIO

04527632
CAR STEERING DEVICE

PUB. NO.: ***06-171532*** [JP 6171532 A]
PUBLISHED: June 21, 1994 (19940621)
INVENTOR(s): KUMABE SHIGEFUMI
APPLICANT(s): MAZDA MOTOR CORP [000313] (A Japanese Company or Corporation)
, JP (Japan)
APPL. NO.: 04-330440 [JP 92330440]
FILED: December 10, 1992 (19921210)
INTL CLASS: [5] B62D-006/00; B62D-101/00; B62D-103/00; B62D-113/00;
B62D-137/00
JAPIO CLASS: 26.2 (TRANSPORTATION -- Motor Vehicles)
JOURNAL: Section: M, Section No. 1677, Vol. 18, No. 503, Pg. 104,
September 21, 1994 (19940921)

ABSTRACT

PURPOSE: To provide a car steering device which can make fine control of the rear wheel steering in which the direction stability of the car and the head swinging are well coordinated even when the car goes in an abrupt deceleration.

CONSTITUTION: Signal computational values obtained from the sensing signals about the car speed V, yawrate .psi.', front wheel steering angle .theta.F, and the front wheel steering angle change rate .theta.'F(sub 2) acquired through differentiation of .theta.F are subjected to additions and subtractions to determine the target steering ratio TG.theta.(sub s) as the target value for controlling the rear wheel steering. When the car goes in abrupt deceleration, it may happen that the sensing value of the car speed V becomes smaller than the actual car speed value because of wheel lock etc., which causes a change in the car speed response gain f(sub 4)(V) largely in the negative direction, so that the directional stability of the car is dropped to result in giving the driver a sense of incompatibility.

To preclude it, the car speed response gain f(sub 4)(V) obtained from the car speed sensing value is fixed to the car speed response gain f(sub 4)(V)(sub 0) calculated at the start of the abrupt deceleration.

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